

TECHSOFT

Product Guide Online Version



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Includes:

Downloadable updates to
2D Design v2
2D PCB and 2D Primary

Sample Files

Designs to Inspire and Make
Teaching Resources

and lots more to come...

2016 - 2017

Product Showcase

2D
DESIGN

V2



2D CAD/CAM

See pages 6-9, 12-50, 60-123

3D

SOLIDWORKS



3D CAD/CAM

See pages 6-9, 18-21, 51-89



brother



Textiles

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Enterprise Packs

See pages 201-206

Product Showcase



Electronics

See pages 14-15, 90-96, 108-109



Furniture

See pages 186-200



Studio & Workshop Equipment

See pages 135-187



Project Management Services

See pages 10-11



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Introduction

TechSoft UK Ltd was founded in the mid 1980s and soon established itself as the market leading supplier of CAD and CAD/CAM systems (Computer Aided Design and Computer Aided Manufacture) to schools, colleges and universities in the UK. Due to customer demand, our Project Management Service was launched in 2007 and since then we have undertaken many successful new-build and re-furbishment projects.

This Product Guide contains not only all our CAD/CAM products, but also manual machine tools, textiles equipment, art equipment (including pottery) and furniture. Our aim, as always, is to provide the right products at the right price, and with the highest levels of support in the industry.

Pricing Information

Prices shown are accurate selling prices at the time of this Product Guide going to print (April 2016). However, manufacturers' costs, shipping charges and exchange rates will vary, and while we will always endeavour to absorb such variations, we may occasionally need to reflect changes beyond our control in our selling prices. We hope that the prices shown will help budget-planning while browsing this Product Guide.

Current prices can always be found on our website or by telephoning.

All prices shown are in £ sterling and are exclusive of VAT

Ordering

SOFTWARE: To avoid delays, please ensure all details are provided.

CARRIAGE: N.B. Carriage charges are for delivery only and do not include positioning or installation of goods.

UK Mainland	£4.50	All goods totalling up to 2kg, eg., software, cutters, pens.
	£12	All goods totalling up to 20kg, eg., Stika, iModela, small embroidery machines, materials and consumables.
	£30	All goods totalling up to 40kg, eg., CAMM 1, SRM-20E, heavy materials.
	£70	Single pallet charge - for goods up to 500kg and less than 1200(W) x 1000(D) x 2000(H)mm eg., RotoCAMM MDX-40AE, large/heavy materials.
	£125	Double pallet charge - for goods totalling up to 500kg and less than 2000(W) x 1200(D) x 2000(H)mm eg., LaserCAMs, Modela Pro II MDX-540E, TechSoft workstations.
	£350	Extra large goods up to 500kg which cannot be delivered by pallet, eg., VersaCAMM, RouterCAM, PlasmaCUT, large furniture. (Priced per item - please ask for quotation if ordering in quantity.)
	£750	Extra heavy goods over 500kg which cannot be delivered by pallet, eg., manual milling machines, manual lathes. (Priced per item - please ask for quotation if ordering in quantity.)
Elsewhere		Carriage charges vary, please contact TechSoft.

POSITIONING & INSTALLATION: Charges vary according to the goods purchased & accessibility to site. Please ask for a quotation.

Payment

Official educational orders welcome, otherwise cheque with order please, payable to TechSoft UK Ltd.

UK customers add VAT to total. (Vat Registration No: 456 9118 23).

Mastercard, Visa, Access, Switch, Maestro and Delta card payments also accepted.

All sales are subject to our standard terms of trading - see inside back cover.

N.B. All pictures, colours, attachments and dimensions are illustrative and liable to manufacturer's changes that are beyond our control.

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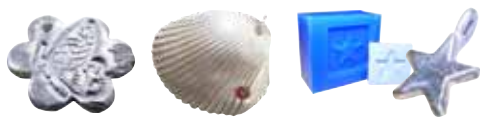
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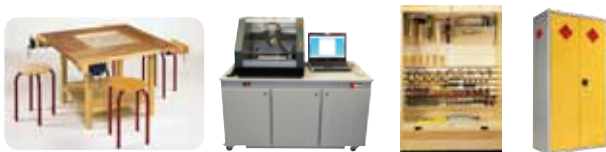


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Our Sales and Training Team

TechSoft's sales and training team spends pretty much every day in schools, colleges or universities, working with teachers in every part of the country to provide training, inspiration and advice about CAD/CAM systems and how best to incorporate them into the Design and Technology curriculum. TechSoft are corporate members of DATA and, as the leading CAD/CAM supplier for UK education, we make it our business to keep up to date with the latest thinking and developments in the subject. Our regionally based personnel have many years of classroom teaching experience between them, and have led workshop re-development programmes in their former roles. They all remain passionate about Design and Technology education in its widest sense.

Leaders in CAD/CAM

TechSoft's flagship CAD software 2D Design, is now the principal design software in over 6000 schools and colleges and we are main education distributors for SolidWorks - the industry leading 3D design software. We offer the most comprehensive range of CAM systems available (many of which are exclusive to TechSoft) and all are selected and supported to give years of reliable service. But we don't just know about our products, we use them too. Whenever we talk to teacher groups, deliver training, or exhibit at shows, we show-off the huge range of projects that we have created ourselves. All use TechSoft resources, all have curriculum relevance and all demonstrate the 'art of the possible' for students.

Complete Solutions for Practical Workspaces

CAD/CAM resources are, of course, only part of the picture when designing and equipping complete classroom layouts, and projects typically involve all areas of the practical curriculum. Our product range includes specialist furniture as well as manual machinery and equipment to meet all likely needs for Design and Technology, Electronics and Control, Textiles, and Art (including Ceramics).

Project Management Services

Launched in 2007, our Project Management Service now has an impressive portfolio of successful projects and satisfied customers. TechSoft has exactly the right blend of experience, vision and skill to create stimulating and safe working environments for students and efficient, well resourced, facilities for teachers.

Our understanding and experience means we can advise on all the elements of an efficient and inspiring work-space. TechSoft handle all aspects of the installation from preliminary meetings through to drawings, delivery schedules and staff training. Our installation team has a wealth of experience with high-level commercial and domestic installation work. This means we can advise on appropriate M&E provision at the earliest stages and complete installation work to a high standard that meets all regulatory requirements.

Pre-Purchase Advice

Whether you're planning a one-off software or equipment purchase, or a complete re-fit, why not talk about your options with one of our highly experienced personnel? Our core belief that 'getting it right for teachers' means person-to-person contact and an on-going commitment to provide advice, technical support and training long after the project (or product) is delivered.

"All our sales and support staff are either ex Design and Technology teachers, graduates in Design and related fields or qualified engineers. This means that not only do we have a wealth of practical understanding; we understand the subject specific issues teacher's face on a daily basis."



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An introduction to CAD/CAM

CAD/CAM Overview

Why CAD/CAM?

Computer Aided Design and Computer Aided Manufacture is the way things are made these days. Without this technology we wouldn't have the range and quality of products available or, at least, they wouldn't be available at a price most of us can afford. Hand-building and manual techniques still very much have their place and Design Education needs to treasure and foster these skills so that future generations will have the 'hands-on' skills to understand the man-made world and provide the next generation of engineers, designers and technicians. All of these professionals will be using CAD/CAM techniques or CAD/CAM products in their work, alongside practical hands-on skill. Design and Technology education has to reflect modern practice so it is crucial that students have the opportunity to use real CAD/CAM tools in their designing and making.



What is CAD/CAM?

Sketching is still an essential tool for exploring ideas but CAD has long since replaced the drawing board and pencil for design detailing and proposal. Although CAD images are referred to as 'Drawings', a CAD file contains mathematical data that defines shape and geometry. In early systems, this numerical data could be coded to control a machine – hence CNC; Computer Numerical Control. Modern CAD/CAM systems do the coding automatically so 'what you draw – is what you get'. When you output a file (a drawing) to the machine there is just a simple dialogue to let the machine know what you want it to do and what settings it should use.

The TechSoft Advantage

In many cases, TechSoft's 2D Design software outputs directly to machines, so this has huge advantages for teaching. Simple 2D drawing can start with the youngest pupils and be developed as they move up the school regardless of which material area they may be working in. TechSoft's 2D Primary software can let this start even earlier. Drawings could be for simple milled-shapes, iron-on logos, laser-cut badges or superb presentation sheets. Whatever the desired outcome, the start will always be with an increasingly familiar software tool. Because we write the software and work closely with machine manufacturers, we make sure that output is easy from 2D Design and, where possible, direct from the desktop with a common output dialog box. This is far more than simple 'compatibility'.

2D or 3D Software?



2D CAD is still an important tool for commercial designers. Graphic design will always be a 2D activity and any project using a laser or knife-cutting CNC machine will need 2D data to work from. 2D shapes are always quick to machine - important in a classroom situation. The parts may be assembled into 3D products reflecting the commercial practice of flat pack assembly.

There is, however, no doubt that 3D CAD is increasingly the norm for commercial designers and it is important that students have access to a good 3D modelling system as well. After much searching and trialling, TechSoft were delighted to be appointed UK Education re-sellers for SolidWorks – world leading 3D CAD. SolidWorks has excellent support letting students quickly get up to speed and onto the important thing which is using it to design better products.

For education, TechSoft's 2D Design V2 and SolidWorks sit very well alongside each other and share much common ground. 2D sketches can be imported into SolidWorks for 3D 'treatment', and elevations created in SolidWorks can be imported into 2D Design for profiling on a CAM system. Many schools introduce students to 2D Design at KS3, SolidWorks at KS4, and then use both 2D and 3D CAD as appropriate to project work right through to A-Level.

CAD/CAM in Education

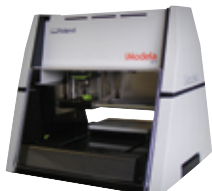
Primary Schools

2D Primary software gives pupils a great new tool for doing a new type of drawing. If you back the software with a Roland Stika, then you'll have all you need to create accurate technical drawings, design eye-popping textures and patterns, cut stickers from self-adhesive vinyl or even print and cut bespoke stickers and labels. Add the iModela or SRM-20 milling machine, and Primary pupils will be machining solid parts for real projects. It's proper CAD/CAM, a great teaching tool and exciting stuff for the pupils.



Stika SV-8E
A good starting point for those on a low budget
(See page 33)

iModela iM-01
A low cost Miller/Engraver
(See page 61)



Secondary Schools

Getting the right CAD/CAM resources is essential to make the most of budgets and to give students the tools that they need. We recommend the packages featured on page 9 as a good place to start. If at all possible, machines should be sited where students have access to see work being machined, and to take some part in the process.

In an ideal world students will have access to all resources whenever needed, but reality says that many departments are split and even clever timetabling won't prevent bottlenecks. It might be sensible to consider several smaller machines in different areas of the department rather than one large machine in a 'hub'. Some schools aspire to an enhanced level of CAD/CAM access, perhaps to meet the needs of Technology or Engineering Specialism and a remit to provide extended resources for neighbouring schools. Whatever the number or scale of machines needed, 2D Design V2 and SolidWorks will provide the core software needed to make them earn their keep.

Colleges & Universities

TechSoft's 2D Design V2 (see page 12) has become increasingly popular at FE and HE level where industry-specific software provides the 'core' but a straightforward route is needed for 2D CAM output. 2D Design V2 provides this and integrates easily with other systems. All TechSoft machines are designed for industrial use and this includes full 3D capability where appropriate. TechSoft are appointed SolidWorks re-sellers for UK education and will be delighted to advise, provide support and training and supply the right package of SolidWorks licences for any college or university adopting this market-leading 3D CAD software.



RouterCAM 1290
Large format routing
(See page 68)

Knife Cutting



CAMM 1 GS-24E
Our most popular vinyl / card cutter
(See page 34)

A good quality knife-cutter is the ideal entry point for developing CAD/CAM as an important strand in the Design and Technology curriculum. The machines are quiet and inherently safe to use making them the most child-friendly option for a huge variety of project outcomes in just about every area of the subject. This versatility and a low initial cost means that almost any department can get started with real CAD/CAM activity. These machines are far more than entry level tools and remain essential to provide full CAD/CAM capability alongside milling and laser technology.



TechSoft supply a broad range of Roland machines which represent the industry standard for CNC knife-cutting technology.

Print and Cut



VersaSTUDIO BN-20
A fantastic desktop printer/cutter
(See page 36)

Print and Cut machines provide brilliant large-format colour printing - but that's not all. They also cut out precise profiles around the graphics so decals and self-adhesive wraps can be produced in one operation.

An individual Graphics department will probably find all the capability they need in Roland's VersaStudio BN-20. The BN-20 has a modest desktop format, a modest price and (importantly) card-cutting capability straight from 2D Design. We supply specially-formulated card that accepts the advanced print technology that the BN-20 shares with its bigger brothers. Print and cut packaging projects have never been made to such a professional standard.

The larger VersaCamm range is ideal for large banners and vinyl graphics making it a fantastic whole school resource.

Milling/Routing/Engraving



RotoCamm MDX-40Ae
Our most popular miller / router
(See page 64)

Milling, Routing and Engraving are all, in effect, the same thing. All machines in our milling and routing range are capable of milling, routing and engraving - it's more about choosing the right tooling and scale of machine for what you have in mind.

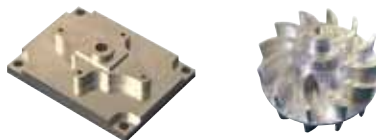


A common misconception is that Engineering courses require CNC milling machinery that will cut steel. This is not always the case.



MODELA PRO II MDX-540E
Large, powerful, ultra high speed
miller/router for the more demanding user
(See page 66)

TechSoft's approach is to supply high quality 'student friendly' machines that will deliver components quickly with the minimum of fuss. When required, the larger Roland machines will happily cope with suitable grades of alloy.



Whether you will be Routing, Milling or Engraving, TechSoft have a machine that will exactly meet your needs. For individual use the iModela (page 61) represents a breakthrough in price and 'personal' CNC capability. The Roland SRM and MDX ranges provide versatile and popular options for education but, for machining steel, look at our Sieg CNC millers (page 70). If size and speed matter, then our RouterCAM machines (page 68) will make short work of furniture panels and batches of student projects.

Laser Cutting/Engraving



TechSoft LaserCAM A2+
High specification laser cutter
and engraver
(See page 23)

Once schools have a laser they wonder how they ever managed without one - so why is this?

Above all, lasers provide the simplest way possible to get from the CAD drawing to the finished product. They work with extraordinary accuracy and delicacy, and the finished edge is usually just that - finished. Lasers have large work areas and are quick to produce results, so class sets of work can be cut and engraved in normal lesson time, with students directly involved in setting-up and outputting files - great for building confidence. Turnaround is fast and with a few important exceptions, lasers will cut and engrave a huge variety of materials so just about every area of Design and Technology is able to get the benefit.



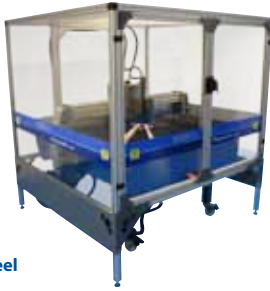
It might be tempting to think that a LaserCAM is the only CAD/CAM machine that you will need and it is certainly true that they can revolutionise the quality of work that students produce. It is important to remember, however, that lasers do not accept 3D data and must not be used to cut vinyl material because of harmful fumes. Milling and knife cutting machines will still be needed alongside lasers to give students a realistic experience of real-world practice, and to have the right mix of tools available for specific applications.

LaserCAM machines are built for world-wide commercial markets and TechSoft have an exclusive arrangement to supply LaserCAM to UK Education. This allows us to work closely with the manufacturers to ensure all necessary safety standards are met and operation is seamless from 2D Design V2. LaserCAMs are supplied as a package that includes everything you need including the highest specification, totally automatic, extraction and filtration system available.

An introduction to CAD/CAM

CAD/CAM Systems

Plasma Cutting



PlasmaCUT
Slice through
up to 12mm mild steel
(See page 30)

Lasers have made a huge impact on student project work but we are often asked "Why can't they be used to cut metals?" In industry, lasers are used routinely for metal-cutting, but high costs and significant risk management issues make the technology unsuitable for educational use – at least at the moment! To meet the need for metal profiling in education, TechSoft are delighted to introduce PlasmaCUT - plasma-beam technology that lets you slice through up to 12mm mild steel with no more hassle than it took to cut card on a CAMM 1.



PlasmaCUT is a high speed profiling machine that works from 2D CAD files generated in 2D Design V2. The machine is housed in an interlocked protective enclosure and connects to a high-efficiency extraction system which captures the particulates produced when plasma cutting mild steel. PlasmaCUT is not a machine for a regular classroom or design studio, but it will fit into any workshop space where there are the usual provisions for hot metal working.

Specialist engineering schools will clearly be interested in the potential PlasmaCUT has to bring sheet metal cutting up to date and, more widely, PlasmaCUT will fit naturally alongside other CAD/CAM and 'benchwork' techniques. It has the power to revolutionise what students are able to do in their project work.

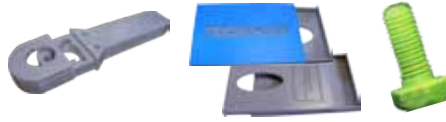
3D Printing



Robox 3D Printer
Build real plastic parts
from 3D CAD files
(See page 52)

3D CAD with Rapid Prototyping (RP) is now an essential tool to enable designers to compete in global markets - it is something all design and engineering students need to know about and, ideally, have access to. TechSoft have been supplying 3D printers since 2004, originally supplying just the professional-series FDM machines from Stratasys.

In recent years, many low-cost alternatives have



come onto the market in the wake of significant media interest about this 'new' technology. Our experience has placed us in a strong position to appraise these budget 3D printers. In our opinion the Robox stands out above the crowd for accuracy, reliability, cost effectiveness, ease of use and safety. It is certainly the ideal machine for use in education – parts just 'lift off' the bed (no glue or tape) and the transparent slide-up cover is automatically locked when a build is in progress. Add to that the automatic levelling plus very fine resolution builds in both ABS and PLA, and you will understand why we recommend it. The Robox offers students the chance to print prototype (often functional) parts with sufficient accuracy and strength for project work. With the optional dual material head providing soluble support removal, there is also the opportunity to make really complex shapes then dissolve away the supporting structures. An amazing machine for such a low cost.

Computerised Embroidery



Brother PR-655
A multi-needle computerised
embroidery machine
(See page 98)

Brother make high-quality CNC embroidery machines for commercial and domestic markets and have a long-standing reputation for reliability, long life and excellent back-up. Their range includes computerised sewing, embroidery or combined capability, so whatever resources you already have, we can supply a machine to take you on to the next level without making existing machines redundant.



Design work can be anything from simple geometrical shapes and patterns to vectorised, colour-mapped or 'straight' photos – just about anything is possible. 2D Design V2 gives you all the tools you need for the design so, with a site licence for the software, you will have full-class access with no limit to the number of 'seats' you can provide. The only 'extra' needed will be at least one seat of Brother's PE Design embroidery software to convert designs into a stitch pattern.



Brother Innov-is V3
A single needle computerised
embroidery machine
(See page 100)

These great value Brother machines will unlock the potential of CNC embroidery for all students.

Image Transfer for CAD/CAM

Ideal for Enterprise and Enhancing Student Products (See pages 199-204)

TechSoft offer two systems for transferring crisp, full colour images onto a huge variety of project materials. They each offer a professional system to enhance projects or to rapidly and economically add value to 'blank' products. Great for enterprise or in-house production of 'branded' products.



Both have their place in a busy D&T Department. See pages 112-116 to decide which is best for you.

Laser Image Transfer

Every department needs a fast, good quality colour printer so why not choose one that will deal with 'regular' paper printing and become the heart of a system that can transform project outcomes in almost every area of Design and Technology? The LIT process uses a modified OKI laser printer and allows images to be transferred onto almost any material that students will be using. LIT can't be beaten for versatility.



Sublimation

Sublimation uses a dedicated Sawgrass inkjet system with gel inks for reliability and ease of use. The first choice for textiles and enterprise work, sublimation does not affect the tactile qualities of the fabric and images are bright and durable. Media for sublimation needs to be polyester-rich or polyester-coated which, in practice, usually means fabrics or ready-prepared blanks (phone pouches, mugs, mouse mats, etc.).



CAD/CAM Packages

At TechSoft we are often asked for advice by both HOD's and architects about the sort of provision required to deliver CAD/CAM across a D&T department. Of course individual school's requirements will always vary according to numbers, existing provision, etc. However we felt that it would be useful to put together some recommendations as to what a sensible provision would be for a "standard" school. Our team of experienced ex-D&T teachers and Heads of Departments have come up with a range of recommendations based on their personal teaching experience, and the experience of visiting hundreds of schools up and down the country. They came up with three categories of provision based not just on cost, but on the school's circumstances, eg., an 11-18 Technology College may well expect to deliver CAD/CAM at a higher level than a 11-16 general comprehensive school.

Having generated these equipment lists, we felt that it would be a good idea to offer them to schools as complete packages:

D&T Basic

This is the minimum provision we would advise to deliver CAD/CAM in an 11-16 school. It will ensure that all materials areas within the KS3 D&T curriculum have shared access to appropriate CAD/CAM resources, and it will provide a basic level of resource for students at KS4.

D&T Standard

This level of provision will enable an 11-16 school to build a D&T curriculum that includes CAD/CAM as a key component of student's work throughout KS3 and KS4. It is particularly appropriate for schools with Technology or Engineering specialist status, and should be considered the minimum provision to resource AS, A-Level or IB courses.

D&T Premium

This is an appropriate level of provision for schools placing a strong emphasis on modern manufacturing in their D&T curriculum, and should be the level to which all schools and colleges aspire. It should be regarded as the standard for schools undergoing new build or refurbishment programs.

Textiles Add-On

Textiles is an important aspect of Design and Technology and one that particularly lends itself to CAD/CAM, both to enhance the range and quality of products that can be made, and to reflect industrial practise. The general D&T packages above will provide some resources for textiles teachers, but we felt it would be helpful to list extra packages as "add-ons" for schools with, or wishing to develop, particular strength in this area. The advantage of adding textile resources alongside the main D&T package, is that schools can be assured of compatibility and common learning platforms in all areas of D&T.

Training Add-On

Training is a vital ingredient when equipping a department with new CAD/CAM machinery. Many TechSoft machines are supplied with Training Packs (see page 206), and some come with on-site training included. However it is advisable, especially when purchasing a large number of machines, to consider additional 'add-on' training days.

Contents

Of course, TechSoft are always happy to talk to schools about their individual requirements if the packages shown are not suitable. We can also supply standard material bundles to help relieve teachers of the burden of having to make dozens of purchasing decisions at an already stressful time.

Design & Technology CAD/CAM Packages for Schools

Prices £*	Basic	Standard	Premium
	£ 36,980	£ 88,460	£ 144,435
Product	Basic Qty	Standard Qty	Premium Qty
2D Design V2 Site & Student Licence	1	1	1
2D PCB Site & Student Licence	1	1	1
SolidWorks School Licence	1	1	1
Visual Toolpath Site Licence	1	1	1
Stika SV-8E	2	2	2
Camm 1 GS-24E with Accessories (Includes: Spare cutter)	2	2	2
VersaSTUDIO BN-20 (Standard 4 Colour Configuration)		1	
VersaCamm SP-300i			1
TMT OKI C610N A4 Printer	1	1	1
Sawgrass Virtuoso SG400 A4 Sublimation Printer	1	1	
Sawgrass Virtuoso SG800 A3 Sublimation Printer			1
Swing Press 330x330mm with Accessories <i>Includes: A-Pad, Soft-Pad, and Sponge for Laser Image Transfer</i>	1	1	
Swing Press 380x500mm with Accessories <i>Includes: A-Pad, Soft-Pad, and Sponge for Laser Image Transfer</i>			1
Mug Press with Accessories <i>Includes: Heat Tape, and Satin Mug Wrap for Laser Image Transfer</i>		1	1
Cap Press			1
RotoCamm MDX-40AE Workstation Package & Accessories <i>Includes: TechSoft Workstation with auto-switch extractor, Self-Centering Vice, Mixed Tool Pack, 3D Tool Pack, PCB Tool Pack</i>	2	2	2
Modela Pro II MDX-540E Stand Alone Package & Accessories <i>Includes: Self-Centering Vice, Tee-Slot Bars(Pack of 2), Machine Vice, Extractor with Attachment, Mixed Tool Pack, 3D Tool Pack, PCB Tool Pack</i>		1	1
RouterCAM 1290 with Accessories <i>Includes: Collet Pack, Router Tool Pack, Plastics Tool Pack, 3D Tool Pack</i>			1
LaserCAM A2+ 30W Package	1	2	1
LaserCAM A1+ 60W Package			1
Robox 3D Printer	1	3	5
uPrint SE Color 3D Printer and Removal System (Includes: Stand)		1	1
Sieg CNC Miller KX35 and CNC Lathe KC65			1

Textiles "Add-on" Packages for Schools

Prices £*	Basic	Standard	Premium
	£ 10,785	£ 16,950	£ 21,345
Product	Basic Qty	Standard Qty	Premium Qty
PE Design Next	3	5	10
Brother Innov-is 35	20	20	20
Brother Innov-is 800E with Thread Starter Set	1	1	1
Brother Innov-is V3 with Thread Starter Set	1	2	3
Brother PR-655 with Thread Starter Set		1	1
Cap, Sleeve, Shoe & Narrow Clamp Frames for PR-655			1
Camm 1 GS-24E with Spare Cutter	1	1	1
Sublimation Textiles Starter Pack A4	1	1	
Sublimation Textiles Starter Pack A3			1

Training "Add-on" Packages for Schools

Prices £*	Basic	Standard	Premium
	£ 695	£ 1,390	£ 2,085
Product	Basic Qty	Standard Qty	Premium Qty
Additional Day(s) of Training	1	2	3
<i>N.B. Additional training days can be taken at any time. It may be beneficial to schedule refresher training at a later date, once the department has had a chance to start teaching with the new equipment.</i>			

* See Pricing Information on page 2.

Project Management Services

Design and Planning

Consultation – Sharing Objectives

Teachers will always be central to awakening and nurturing creative talent in young minds so sharing the vision for learning spaces with the right layout, furniture and equipment is the essential first step. Architects, building managers and budget holders will have their own priorities so, at the outset, TechSoft will actively seek a dialogue with all partners to ensure the project begins with the right design brief.

The Right Resources

TechSoft Project Managers are keenly aware of new developments and methodologies in practical curriculum areas and are able to advise and specify the right range and level of resources to support learning. We design and equip learning spaces to meet current needs but, where possible, with sufficient flexibility to accommodate timetable shifts and different emphases as national and local priorities dictate. This Guide contains a comprehensive selection to meet all likely needs, but if a particular brand of equipment is requested by teaching staff (and it is not listed in this Guide) we remain happy to discuss options. We will always tailor proposals to best meet individual requirements and a dialogue with all parties concerned will be a part of this. The right mix of hand, machine and CNC equipment will be specified with care to provide best value and a safe, efficient and inspiring workspace for students and teachers.

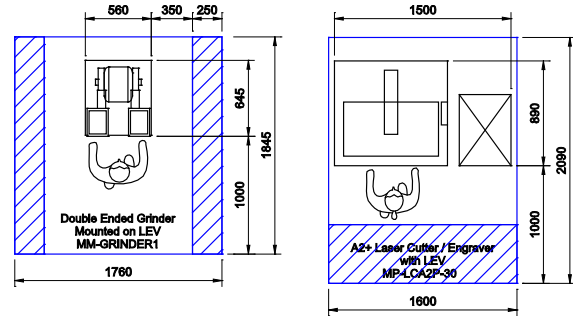
Design and Planning

Furniture and machinery requires floor or bench space, sometimes space for moving parts and (crucially) a safe working area (SWA) for the operator. Many of these details are the subject of statutory guidance. After initial consultation meetings, TechSoft will prepare outline layouts and machine specifications to meet the agreed design objective. Due regard will be taken of statutory regulations including BS4163:2014 and DfES Building Bulletin 81. Initial layouts will highlight where additional services are required, and further drawings and specifications will be prepared for M&E contractors if appropriate. Where services are fixed, layouts will be created to optimise work space and minimise costs. After further consultation (and amendment if needed) we will prepare agreed layout drawings for all parties.



CAD Drawings

TechSoft have ready-prepared CAD drawings showing the 'footprint' and SWA (safe working area) for all items in this guide where these dimensions are critical. FF&E contractors, design managers and consultants preparing room layouts themselves will find these an invaluable tool. A CD containing all the drawings in DXF, DWG and DTD (2D Design) format is available from TechSoft on request.



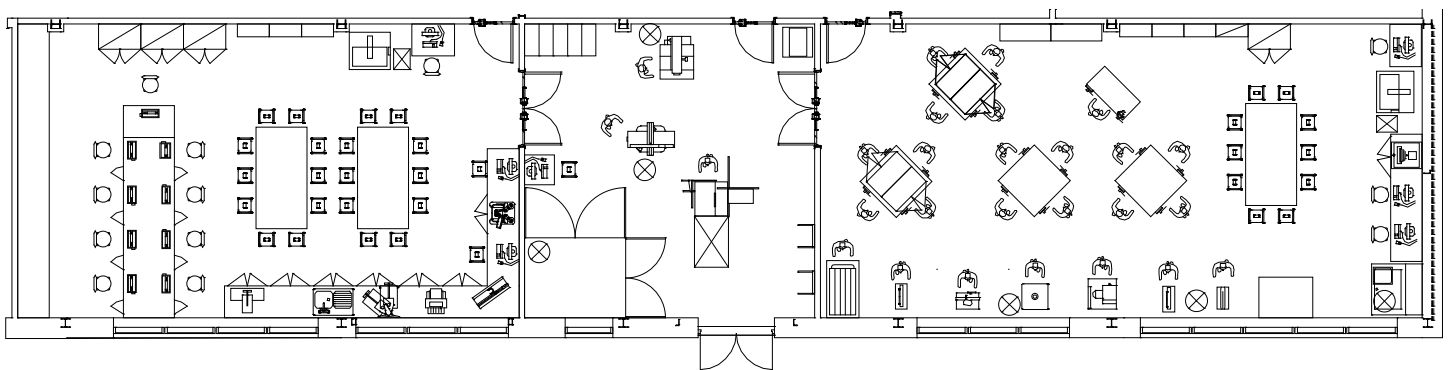
- Overlap of Space**
These areas can be overlapped and shared between items of the same type (ie., machines or furniture). N.B. All dimensions are in mm.
- Clear Working Space**
These areas should be kept clear at all times. The exception to this rule is Prep room machines where clear working spaces can overlap (based on the assumption that only one machine will be operated at a time).

Mechanical & Electrical Specifications



Where appropriate, TechSoft will supply full specification sheets for all machines under consideration. These sheets contain technical specifications for calculating electrical loadings and determining any additional services required.

An installation drawing is also included and, for ease of reference, this shows key electrical specifications and the detail of specific M&E provision needed.



Installation and Commissioning

Good working relationships with suppliers, builders and construction teams help to make sure deliveries happen to schedule, access arrangements are all in place and all equipment is placed where planned. TechSoft maintain an on-site presence throughout this critical phase to ensure a trouble-free operation where potential problems are nipped in the bud. Installation is carried out by our own engineers who make sure all statutory and agreed requirements are met in terms of fixing down, key-switches, footstops and electrical wiring. Commissioning involves a thorough check of compliance and machine functions before signing off and handover.



Training and Support

Our commitment to 'getting it right for the teacher' continues long after commissioning and handover. TechSoft's Project Managers actively seek a dialogue with teachers and technicians at an early stage so that any technical or training issues can be dealt with swiftly. Commissioning always involves familiarity training and includes free lifetime phone or email support. Most of our CAD/CAM equipment is supplied with free, detailed training material and some larger items have on-site training courses included.



To help teachers to get the best from their new resources, we recommend a phased on-site training package is considered alongside the equipment schedule. This could include advanced operation, curriculum applications and project ideas. Any such package would be bespoke but would typically be run (by mutual agreement with teachers) in the first and second years after handover.

Service and Maintenance

Keeping workshops and machinery in optimum condition is essential for safety and for efficient work. All workplaces, including educational establishments, have a legal obligation to carry out servicing and compliance checks, and need policies and maintenance records in place to demonstrate this. TechSoft are able to arrange thorough inspection and service schedules for all workshop machinery installations. Checks are carried out in-line with statutory requirements, electrical checks and adjustments made as required, and any minor mechanical or electrical issues attended to as part of the service. A full service report is provided and this will satisfy the need for record keeping, will give a condition report on each machine and will highlight the need for any remedial work should it be required.



Aldworth Science College

"After a fire in our technology room, TechSoft provided tremendous support in re-designing the room to get the best use of space. From ordering to installation, on-going training and support, I cannot fault TechSoft's service"

Kirsty Turner (School Business Manager)

Brine Leas 6th Form Centre

"The professionalism of TechSoft's Project Management team has allowed the project to proceed smoothly and efficiently, resulting in very high quality rooms being completed promptly and to our specifications. We have valued their guidance, support and co-operation and look forward to working with them in the future."

Paul Barton (Head of Design and Technology)

William De Ferrers School

"The William de Ferrers School engaged the services of TechSoft to design and coordinate the equipping of two engineering suites and a graphics room as part of a new build project. The end to end project management service provided by TechSoft staff was excellent, the standard of detailed knowledge and workmanship were equally good. The school staff involved in the project found TechSoft professional in their approach and are extremely happy with the end result."

Russell Ayling (Headteacher, MA, BA, NPQH, FCMI)

Christ's College

"The Senior Management at Christ's College and I have found TechSoft's approach to both the design and implementation of our new D&T facility to be exemplary. We are proud of our new workshop and delighted at the response of our pupils as they enjoy working in it. We strongly appreciate TechSoft's considerable efforts to deliver the project on-time and have been impressed with their unprompted willingness to always 'go the extra mile' to meet deadlines, to deal with difficulties and to ensure all workmanship is of the highest standard. We have been particularly pleased to work with TechSoft's Project Manager, Tim Elderton who has been sympathetic to our needs from the outset, an amiable colleague to work with and highly professional in his approach. Above all, he has shared our vision for what our pupil's deserve and shown commitment to deliver this in full. We have no reservation in recommending TechSoft for any new school or refurbishment project."

Chris Smith-Keary (Head of Design and Technology)

Luton Sixth Form College

"The College found TechSoft to be very helpful and responsive. They gave us sound advice on equipment selection as we planned our transition to a new technology base. TechSoft were able to supply an excellent range of products for use by teaching staff and students as well as workshop machines for our facilities staff. All have proved safe to use and robust in service. The College now benefits from the latest technology and the students really enjoy working with the new machines. I would have no hesitation in re-employing or recommending TechSoft."

Tony Whitehead, PM and Facilities Manager

TechSoft Design Tools Software

2D Design

Graphic Design, Technical Drawing and CAD/CAM



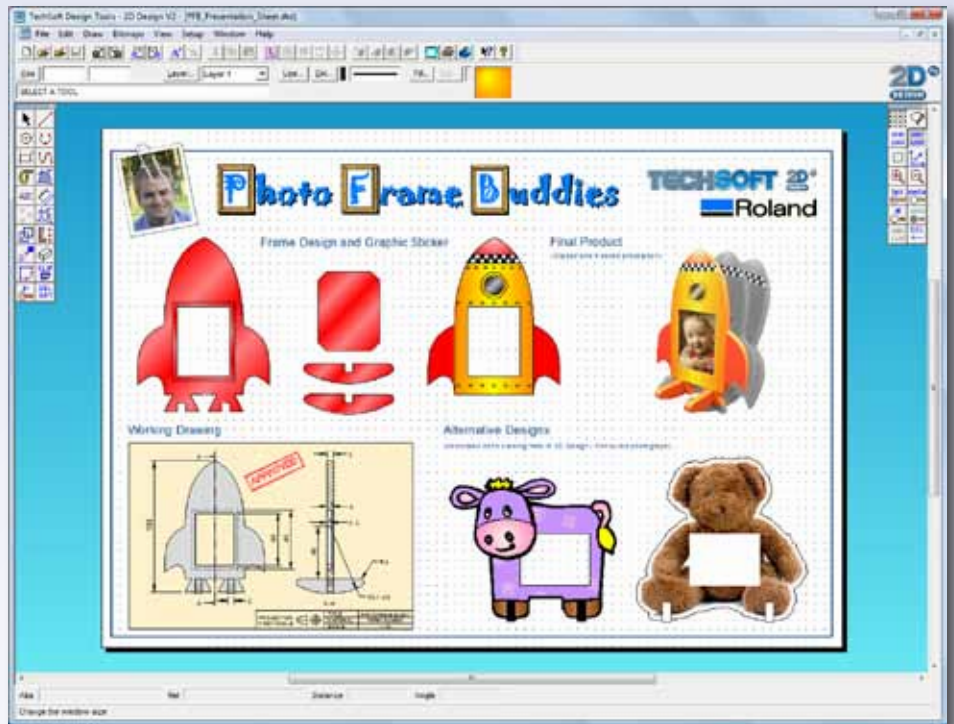
TechSoft created 2D Design for users who require sophisticated drawing and design features, but don't want to spend a lifetime learning to use them. Although designed with professional capability, its ease of use means that 2D Design is the CAD standard for the vast majority of UK secondary schools. Whether you need to produce traditional engineering drawings, colourful 'free-form' designs for embroidery, or smart graphical presentation sheets, 2D Design V2 has been carefully developed to give you all the tools you need – and all in one place.

Graphic Design

2D Design V2 offers thousands of exciting options for combining vector drawing with text, bitmaps, photographs or clip-art to create stunning graphic products. Comprehensive editing tools allow any image to be clipped to size and shape; bitmap images can be converted into a vector drawing; individual font characters can be customised; colour fills can be single colour, graduated, texture or pattern, etc. The options are endless – the texture fill could be used to simply render a drawing with a photograph of the material it will be made from; the pattern fill could become an application in its own right to design patterns for Sublimation (see page 114) work or embroidery.

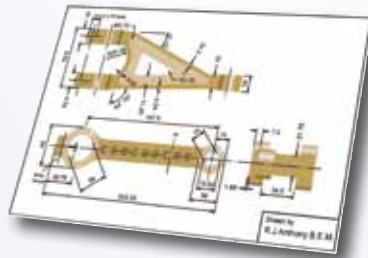


The graphics elements of 2D Design V2 give the student all the tools they need to design packaging products, posters, point-of-sale displays, greeting cards, etc. In addition, 2D Design V2 provides an intuitive tool to compile design folder pages by importing photographs, scanned sketches and research material alongside CAD drawings – the possibilities are endless.



Technical Drawing

2D Design V2 makes an excellent electronic drawing board with an extensive range of tools to enable you to accurately draw and dimension anything from a nut and bolt to a super tanker. All the line-geometry, transformation, edit, attach and dimensioning tools are there.



If you are new to CAD, but familiar with conventional technical drawing, you will soon be producing work to meet any sector standard. Layers can be used for construction work, standard sheet templates, dimensioning or output to CAM, etc. There is no practical limit to the complexity of drawing 2D Design V2 is capable of doing. We supply numerous universities who find it gives them everything they need from a 2D CAD platform - it integrates easily with other packages and it provides a hassle-free way to output to CAM machinery.

“2D Design has the best combination of powerful tools and ease of use available”

CAD/CAM Output

A key feature of 2D Design V2 is the high level of integration that has been built in between the output device and the drawing stages of design.



When starting a drawing you will typically set your page size to suit the machine you will be using - at its simplest level this means that the design will 'fit' and you can position the job accurately on the work area, but there is more to it than that. Once set, all the particular features of that machine become available so, for example, you can add registration marks ready for print-and-cut using knife-cutting machines and you will see a dialog box to set up the rotary table for a LaserCAM. When ready to output to many CAD/CAM devices and all our Roland and LaserCAM machines, there is one simple machine-specific dialog box to deal with and no tedious post-processing to confuse matters.

Powerfully Simple

Unlike many CAD packages, 2D Design V2 has a simple desktop that lets learners start with basic tools, adding new tools as their confidence grows. Everything about the software can be customised to suit different ages and abilities, and versatility means that learning can be built-in to any manner of project applications from KS2 onwards. By KS4, 2D Design V2 simply becomes a powerful tool for designing and making, and continues to be so into sixth form and beyond.



Just a few of the CNC machines that are **DIRECTLY CONTROLLED** through 2D Design V2



Pre-printed card is scored and cut in a GS-24E



Card Packaging



Flat Pack Model Chair



Slot Jointed Acrylic Photo Frame

Features

- Exhaustive geometrical constructions including circles, arcs, lines, tangents, normals, etc.
- Comprehensive drawing aids, user-defined grids and attach (snap).
- Powerful tools such as fully tuneable bezier curve drawing, text flow along a path, etc.
- Comprehensive text facilities, even exceeding those in many sign-writing packages.
- Single line fonts and an in-built font editor/designer.
- Bitmap to vector conversion.
- Clip path tools, essential for creating professional high end graphic images.
- Comprehensive graduated, texture and pattern fill routines.
- Comprehensive transformation tools including move, mirror, size, array and distort.
- Automatic or manual dimensioning. Work to pre-set or user-defined scales.
- Contour feature to off-set lines. Invaluable for creating cutter-compensated tool paths or tracing.
- Powerful editing and delete features, unlimited user-named drawing layers. Cut and paste to and from many other packages, including Word.
- Import/Export BMP, DXF, EMF, HPGL, TIFF, JPEG, PNG, WMF, plus legacy Acorn formats.

Software Information

Site Licence

A Site Licence allows a school/college to install the software on any number of computers on the school site.

Student Licence

A Student Licence allows a school/college to distribute a special non-output version of the software to students and teachers for home use. Students will be able to save work for output back at school. Schools may choose to charge a nominal amount per student, to recoup the cost.

Minimum Hardware Requirements

Windows 2000 / XP / 2003 / Vista / 7 / 8 / 10.
Microsoft recommended minimum hardware specification advised.
Network compatible (site licence only).

Ordering

In order to avoid software theft, the software is encrypted with the name of the licensed user, typically the name of a person, or the name of an individual establishment.

When ordering please state:

- Name of licensed user/site (max 28 characters, including spaces).
- Address for site licence if appropriate.

Prices £*

*See Pricing Information on page 2

TS107	2D Design V2 Single Licence	245.00
TS108	2D Design V2 Site Licence	695.00
TS109	2D Design V2 Student Licence (<i>site licence holders only</i>)	395.00
TS119	Upgrade Single Licence V2 to Site Licence	450.00

Version 1 to Version 2 Upgrade Prices:

TS102	Single Licence V1 to Single Licence V2	145.00
TS106	Single Licence V1 to Site Licence V2	595.00
TS103	Site Licence V1 to Site Licence V2	295.00
TS104	Student Licence V1 to Student Licence V2	145.00
TS105	Site & Student Licence Upgrade V1 to V2 (<i>Save £45</i>) (<i>N.B. To be eligible for the combined Site & Student Upgrade both Site and Student Licenses must currently be held for V1.</i>)	395.00

2D PCB

Printed Circuit Board Design & Manufacture

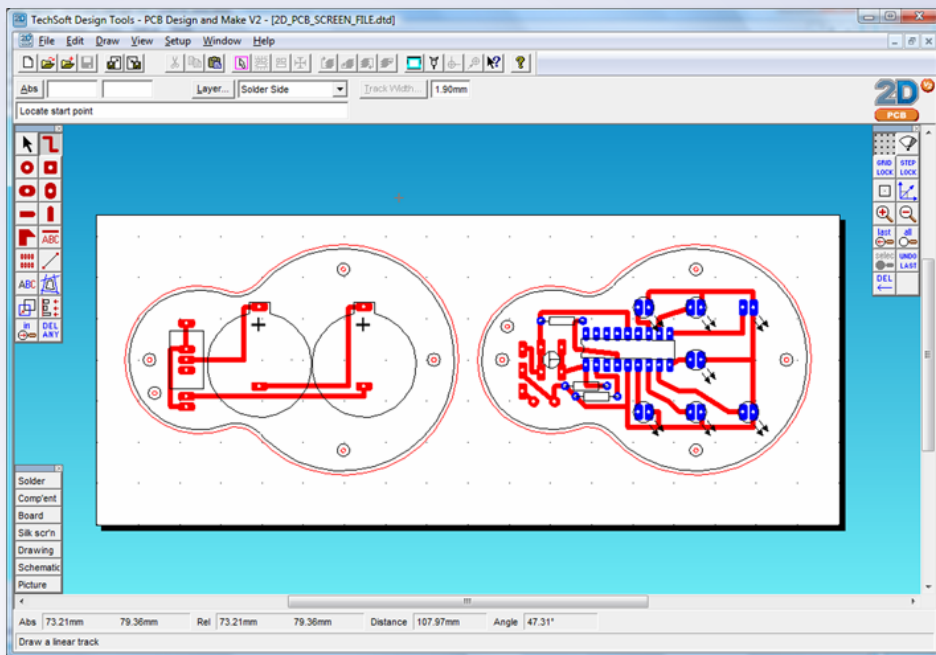
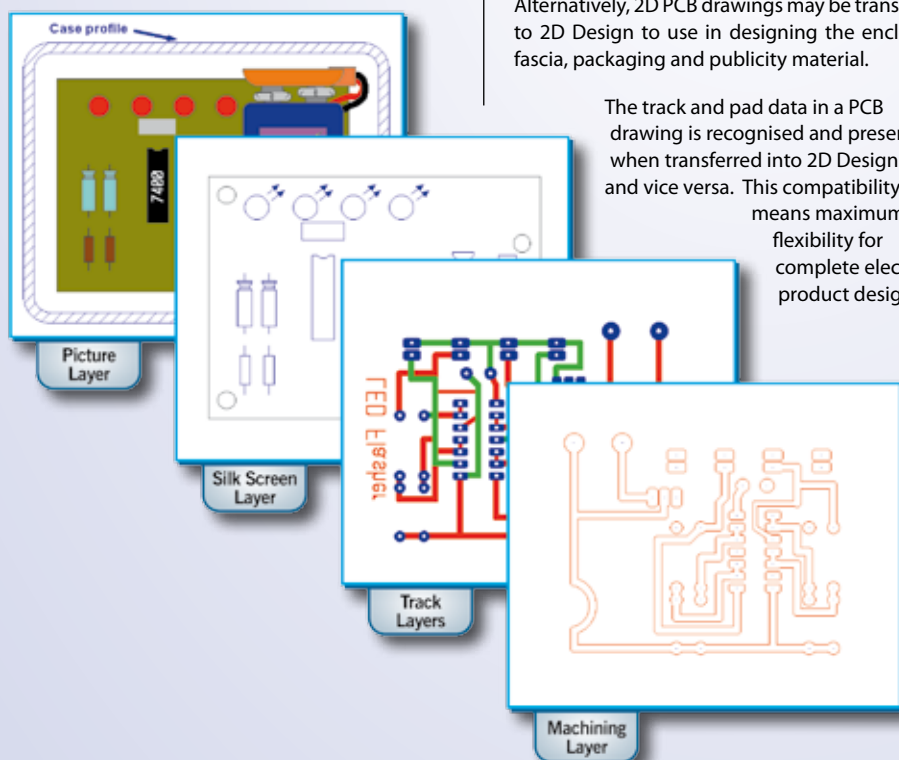


2D PCB is effectively two programs in one package.

Firstly, a very simple to use PCB design package, developed specifically for the needs of education and secondly, a PCB manufacturing system. The system allows the use of a STIKA, CAMM 1, VersaSTUDIO or VersaCAMM to cut out the tracks in sticky backed copper foil, or the use of a SRM-20E, RotoCAMM, EGX-350E, etc., to engrave around the tracks, drill the holes and cut out the board, for a completely finished PCB.

PCB Design

2D PCB provides a convenient and professional method of designing printed circuit boards and drawing schematics. Although a very comprehensive system, the most important design consideration for our software writers, has been to make it easy to use and accessible to students. It is ideal for both simple single-sided PCBs, and complex double-sided boards. A library facility allows standard component libraries (supplied) to be used. Alternatively, user defined components, or even whole circuits, may



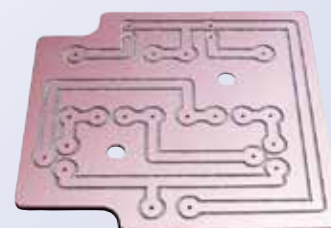
be saved as library items. Thus it is possible to create small system boards which may easily be loaded and "joined" together to form complete circuits. A large selection of pre-drawn "Alpha" circuit modules is included.

Links with 2D Design mean that design drawings may be used as templates, allowing accurate positioning of components on the board. Alternatively, 2D PCB drawings may be transferred to 2D Design to use in designing the enclosure, fascia, packaging and publicity material.

The track and pad data in a PCB drawing is recognised and preserved when transferred into 2D Design V2 – and vice versa. This compatibility means maximum flexibility for complete electronic product design.

Features

- Shares a common user interface with education standard drawing package, 2D Design V2
- Colour coded double layer boards, silk screen and schematic layers
- Preset or user definable pads and tracks. Tracks may be drawn at any angle
- No practical limit to size of board or component count
- Comprehensive transformation commands, move, rotate, mirror image, copy and array
- Editing mode allows single items, or groups, to be moved while maintaining connectivity
- Comprehensive zoom facilities
- User definable library items, allows whole circuits to be used as library items, thus enabling "system" circuit design
- Opens 2D Design files allowing board profiles to be matched to enclosure design, component profiles to be incorporated into library items, etc.
- Graphical output via Windows printer drivers
- Manufacturing output to Roland CNC Machines



PCB Manufacture

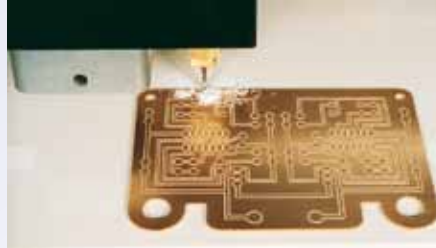
Conventional school PCB manufacture has been fraught with problems. Now TechSoft have devised clean, quick and simple solutions using manufacturing machines already widely available and proven in schools. Look at the advantages:

- NO** "Bridging" of tracks due to faulty etching.
- NO** Dangerous chemicals and messy etch tanks.
- NO** Chemical disposal problems.
- NO** Multi-stage manufacturing processes.
- NO** Expensive photo etch board.
- NO** Guessing exposure times (and getting it wrong!).

The software allows two basic manufacturing strategies, engraving onto conventional PCB board using a SRM-20E, RotoCAMM, EGX-350E, etc., or cutting a circuit from sticky backed copper foil using a STIKA, CAMM 1, etc.

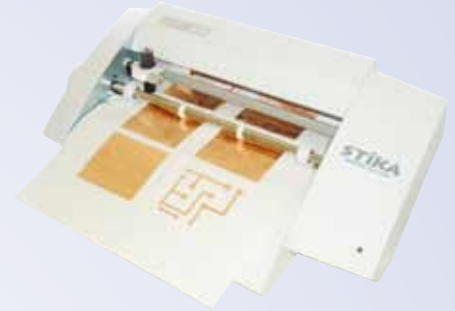
Engraving PCBs

A piece of PCB board is placed on the machine bed, and the *Make PCB* option is selected. The machine will then automatically engrave the tracks, drill the holes, and cut out the board. This is a quick, clean and reliable process (eg., a typical



simple 555 based circuit should take no more than a couple of minutes to complete on a RotoCAMM). Virtually any circuit design can be manufactured with this process. It is even possible to put tracks between DIL pads!

Copper Foil PCBs



This process, developed by TechSoft, uses a self-adhesive copper foil (Cutronics). This fits into any Roland vinyl cutter and cuts just like vinyl. When weeded, the circuit can be applied to any suitable substrate such as plastic sheet, wood or card. (If card is used it is possible to make bendy, even "roll up" circuits).



This process is ideally suited to simple circuits with larger pads and tracks, a marvellous introduction to PCB manufacture.



Electronic Dice

Isolation Engraved PCB (FR2 PCB Laminate - Paper & Resin board ideal for CAD/CAM)

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Minimum Hardware Requirements

Windows 2000 / XP / 2003 / Vista / 7 / 8 / 10.

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Network compatible (site licence only).

Ordering

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When ordering please state:

- a) Name of licensed user/site (max 28 characters, including spaces).
- b) Address for site licence if appropriate.

Prices £*

*See Pricing Information on page 2

TS115	2D PCB Site Licence	275.00
TS116	2D PCB Student Licence	125.00
Version 1 to Version 2 Upgrade Prices:		
TS117	PCB Design & Make Site Licence upgrade to 2D PCB Site Licence	95.00
TS136	PCB Design upgrade to 2D PCB Site Licence	215.00
TS137	PCB Make upgrade to 2D PCB Site Licence	155.00
TS118	PCB Design & Make Student Licence upgrade to 2D PCB Student Licence	35.00
TS138	PCB Design & Make Site and Student Licence upgrade to 2D PCB Site & Student Licence <i>(Save £10)</i>	120.00

2D Primary

Accurate Drawing and Design Software for Key Stage 2



Wow...That's Helpful!

TechSoft are keenly aware that Design and Technology in Primary Schools brings an entirely new set of challenges. Software has to be easy to master and must quickly prove itself to be exciting and motivating, especially where content is taught within themes that have their own learning priorities. We have listened carefully to teachers and have taken a long hard look at our well-established Primary Design programme with a clear aim to make it the most helpful, versatile and easy-to-use drawing package you could wish for. The result is 2D Primary and we reckon it's something with enough 'wow' to see it being used for Design and Technology and much more besides.



Drawing with Computers

Most simple 'paint' packages work by colouring dots (pixels) on the screen - this looks OK and you can print out the drawing, but that's about all. 2D Primary is a 'vector' package and every line and shape you draw will have a unique mathematical identity defined in terms of coordinates and geometry. You won't be aware of this when designing, but it means that drawings can be edited, dimensioned and output to a CAM machine. Printed copy will be exactly right size and not scaled to fit the page. This is the way that most commercial Graphic and Computer Aided Design packages work, so 2D Primary is a great preparation for future learning and provides pupils and teachers with powerful new tools at KS2. The software uses a familiar Windows interface and is logical and easy to use, so pupils and teachers will quickly be up to speed.



Features

- A wide variety of drawing functions, lines, circles, shapes, tangents, polygons, etc.
- Great text facilities. Use any outline font, any size position or orientation, any colour including texture fills and drop shadows.
- Comprehensive transformation functions including, move, mirror, copy, rotate, re-size and distort.
- Easy to use grid function. Lock onto cm or mm grids for accurate drawing, change to an isometric grid for 3D effect.
- Attach tool to 'snap-to' circle centres, end points and intersections.
- Select from three levels of desktop to suit different ages and abilities.
- Comprehensive, quick and easy to use Zoom tools.
- Powerful editing functions including Edit and Add nodes to lines and shapes.
- Cut and paste facilities, allows you to link with most Windows packages.
- Import and Export files in most common formats (eg., jpeg, tiff, gif, wmf, emf, etc.).
- Clip and crop photo-images to shapes or 'freehand'.
- Change photo-images to greyscale, monochrome or reduce image size.
- Output via Windows printer driver to any standard printer, or output directly to Roland iModela, Stika or CAMM 1.
- Comprehensive fill tools including linear or circular graduated fills with any number of colours, and texture fills using bitmap files. Large selection of common texture fills supplied in a library.
- Total compatibility with 2D Design V2 to allow cross-phase working.

Drawing and Design

2D Primary can't be beaten for making accurate project plans. These can include dimensions and can be 'filled' in flat colour, shaded (or graduated) colour, or even photo-images of the material they will be made from. Plans can be printed onto label paper to make accurate templates, or pages can be bordered, titled and printed onto regular paper as a record for design folders.



2D Primary makes a great graphic design tool as well. Text, photographs and accurate drawings can all be combined making it ideal for presentation pages, or for creating posters and leaflets. We've been careful not to overload the software with too many tools but have included simple ways to change photo-images and trim them to size and shape.

Not Just For D&T

You don't need to be aware of the geometry working for you under the surface of 2D Primary, to be able to create accurate drawings, but it is there and if you want to focus on numeracy then why not? Many Primary schools find it the ideal package to support pupil's learning in mathematics; shape, space, pattern, size and number. Using 2D Primary to design presentation pages could, of course, be used anywhere in the curriculum.

Computerised Manufacture

Using 2D Primary for CAM (Computer Aided Manufacture) takes you onto another level - not only can you draw things, you can make them too!

Knife Cutting

Lines drawn in 2D Primary are more than just images - in 'computer-speak' they are called vectors. These show you what you have drawn but also contain coordinates to 'steer' a CNC machine. A simple Stika machine (see page 33) makes a great starting point for proper CNC work. A Stika uses a tiny blade to cut a vast range of 'applied media' to make, for example, stickers, badges, or iron-on logos. The process is simple, safe and output is direct from the 2D Primary drawing.



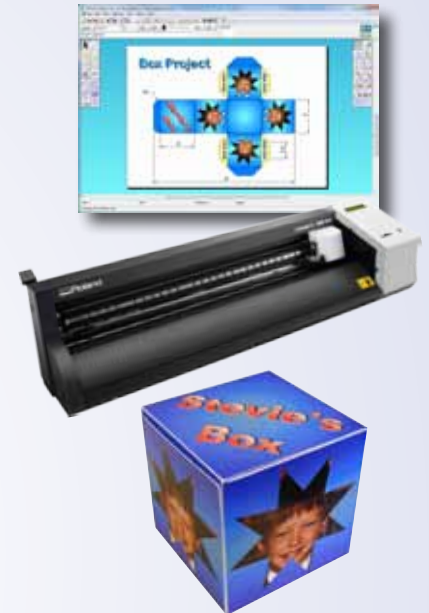
Milling/Engraving

CNC milling and engraving machines work in the same way as knife-cutters but use a rotating 'bit' (rather like a drill) to cut and remove solid material. Until now, CNC milling machines have been too expensive for most Primary schools but the new iModela (see page 61) has changed all that. Using the same 2D Primary software, iModela will happily cut out shapes in light modelling materials to make, for example, accurate parts for projects, stamps, badges and moulds. iModela is safe and simple to use.



Print and Cut

At its simplest, the Roland CAMM 1 GS-24E (see page 34) is a super-fast, super large Stika. It is therefore useful for enterprise projects, but there's more to it than that! The GS-24E has an optical registration feature that allows the cut path to be aligned with printed graphics. It also has sufficient power to cut thin card. This means that stickers and card packaging nets can be printed using a regular printer and then cut-out to professional standards using the GS-24E.



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When ordering please state:

- Name of licensed user/site (max 28 characters, including spaces).
- Address for site licence if appropriate.

Prices £*

*See Pricing Information on page 2

CAD Software:

TS111	2D Primary Site Licence	* 95.00
TS112	2D Primary Student Licence	* 95.00

Version 1 to Version 2 Upgrade Prices:

TS113	Primary Design upgrade to 2D Primary	55.00
TS114	Primary Design Student Licence upgrade to 2D Primary Student Licence	35.00

CAM Machines (controlled by the software):

Knife Cutters

MP-STIKA-SV8E	Roland Stika SV-8E (inc TechSoft Training Pack). See page 33.	350.00
MP-CAMM1-GS24E	Roland CAMM 1 GS-24E (inc TechSoft Training Pack). See page 34.	1,195.00

Milling Machines

MP-IMOD1	Roland iModela iM-01. See page 61.	499.00
MP-RL-SRM20E	Roland SRM-20E (inc. TechSoft Training Pack). See page 62.	2,995.00

CAD/CAM Package:

TP-CADCAM-PRI1	Primary CAD/CAM Package (includes 2D Primary Software Site Licence, Stika SV-8E with Training Pack, iModela iM-01)	944.00
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* 2D Primary is only available at this special low price to schools teaching students of year 6 and below. All other establishments must pay the full price of £175 for a single licence, £425 for a site licence.

The Complete 3D Design and Engineering Education Solution



CAD For Creativity

SOLIDWORKS was conceived to give designers an intuitive and powerful tool which quickly gets past learning how to use it, and on to using it to design better products. Speak to any design professional or undergraduate and they will recognise SOLIDWORKS as a global leader in 3D CAD - and there's a pretty good chance it is what they use in their day to day work.

Designed To Be Intuitive

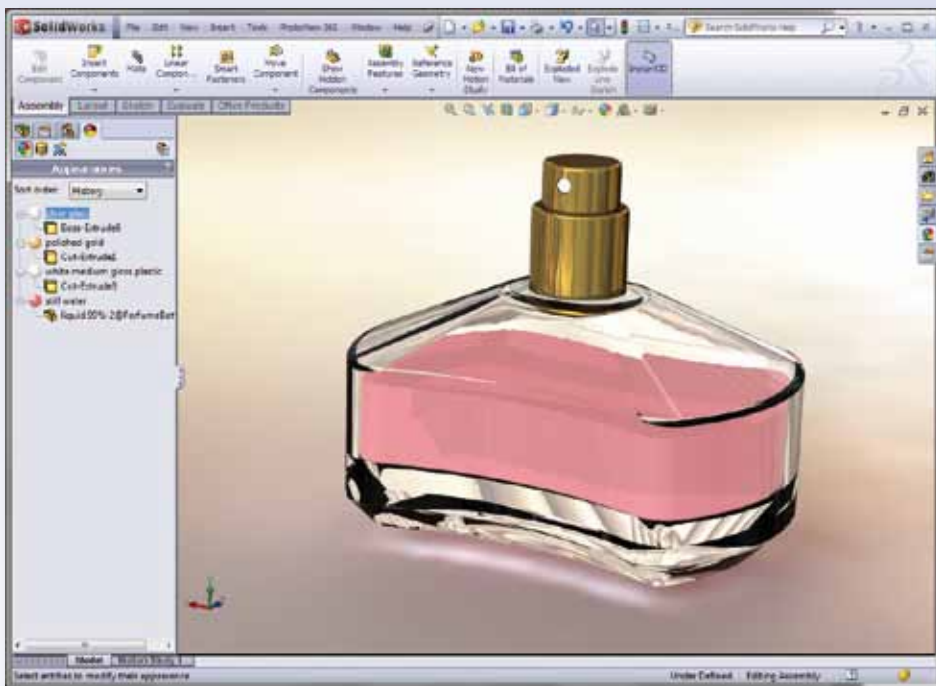
It makes sense that students should be using industry-leading products but commercial credibility is not the same as educational suitability. SOLIDWORKS is different. We believe that the designed-in advantages of SOLIDWORKS make it by far the most appropriate and easiest to use system for education.

Grasping the Basics

3D CAD does require a new way of thinking and you start by getting the idea of planes, features and sketches clear in your mind. SOLIDWORKS makes these key concepts as clear and obvious as possible so, once grasped, learning builds on understanding rather than remembering which button to click. Help is always available to show you where tools are and what they do. Whilst working, you can pause at any point to run through one of the many on-screen interactive tutorials if needed. Each step of the modelling process is recorded in a history bar and, using this, you can go back to any point and edit the original work. Once the edit has been made all subsequent work will automatically update. Gone are the days of 'bin it' and start again!

Find Your Own Level

Alongside the main design area is a 'Home' tab with access to on-line support, further tutorials and your own customer portal where case studies can be downloaded. Example videos range from entire millionaire yachts to jewellery and brakes for F1 cars - all modelled and tested in SOLIDWORKS. The examples demonstrate what a powerful package SOLIDWORKS is but, if it seems daunting, don't worry. Few users will be experts in every aspect of the software, and most will be using the main features and tools that apply to their particular sector. Education is no different. Most of the time students will be using SOLIDWORKS to create straightforward parts that they can assemble, test, render and animate on-screen. If this seems like you're only scratching the surface then that's OK. As confidence grows, more advanced tools can be added to the repertoire and all have the same intuitive feel and built-in support.

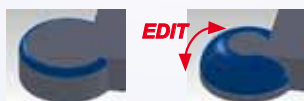


Direct Modelling – 'Instant 3D'

SOLIDWORKS models are usually created by building up features based on 2D geometry. This 'feature-based-modelling' is ideal for teaching and starting-out, but it's not the only way of working. Once a basic model is created then 'Instant 3D' functionality becomes available.



Most features can then be adjusted, copied, moved or edited by simply clicking and dragging with the mouse.



'Instant 3D' gives SOLIDWORKS the best of both worlds - direct modelling when a 'free-form' experience is helpful, or feature-based when key dimensions and parameters are being set. There's no 'big decision' needed about which way to work - simply choose what works best for you at any stage in the modelling process.

Home Use

Once the basics have been taught in school, students will want to develop expertise independently and, in our experience, this is where SOLIDWORKS really starts to take off. SOLIDWORKS has a huge web-presence so students will soon find masses of resources and like-minded colleagues keen to share ideas, tips and techniques. This way, students will develop personal expertise at a pace that would be hard to match in the classroom. To facilitate this important learning opportunity, schools and colleges will need to maintain their subscription to SOLIDWORKS and provide access to the Student Design Kits and Student Engineering Kit (see page 19).

SOLIDWORKS Analysis Tools

Behind the 3D image, a SOLIDWORKS model can be referenced to other data that describes, for example, material properties or manufacturing methods. The following packages operate within SOLIDWORKS to give students unparalleled access to sophisticated analysis tools. Operation is via a simple wizard in all cases, ie., the software does all the hard work!

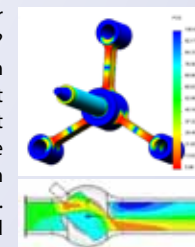
Sustainability

Decide what your model is made from, the manufacturing method, where it will be made and where it will be used. A life cycle assessment is then calculated and a report shows the environmental impact of your design. Try it again but make some changes to see how it affects your 'green' credentials.



Simulation

Will your model bend or break when you use it? SOLIDWORKS Simulation is a simple Finite Element Analysis (FEA) tool that allows students to analyse stress, flow and motion in relation to their 3D model. Results are displayed graphically as colours on the model, or as an animation, making it easy to spot potentially weak areas of the design.



SOLIDWORKS Costing

The SOLIDWORKS Costing tool provides estimates of how much parts should cost to manufacture. SOLIDWORKS models are easy to edit so why not create different versions of your design and try to 'economise' in the choices you make. SOLIDWORKS costing can compare models so you can develop the most economical solution.

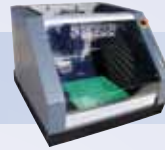
SOLIDWORKS 3D Design, Simulation & Analysis Software

SOLIDWORKS Education Edition - School Licenses

CAD/CAM Output



Visual Toolpath



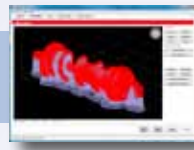
iPod Docking Station



Visual Toolpath



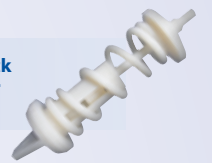
Aluminium Injection Mould



Dimension Catalyst



ABS Shock Absorber



Don't let a 3D image on the screen be the end of the process for your students. SOLIDWORKS models can be easily saved as STL files for manufacture on all Roland 3D capable miller/routers, the TechSoft RouterCAM range and our 3D Printers. The students can then realise and handle their designs.

Home Use - SEK or SDK?



A Student Engineering Kit (SEK) is a time-limited, stand-alone version of the full SOLIDWORKS Education Edition. Each year a school licence subscription provides 60 one year SEK licences (activations) for use by students and teachers on their personal laptops/home PCs.

A Student Design Kit (SDK) is a time-limited, stand-alone version of the core 3D Design part of the SOLIDWORKS Education Edition. Each year a school licence subscription provides an unlimited number of one year SDK licences for use by students and teachers on their personal laptops/home PCs.

For both the SEK and the SDK, the school can distribute the software either by instructing their students to download it free of charge, or by purchasing DVDs.

Curriculum Resources



Comprehensive, interactive Tutorials are built-in to SOLIDWORKS and these are a great way to get started. Further project-based tutorials, Student Guides and Instructor Guides are all available for download free of charge via the user home page or MySolidWorks (whilst in subscription). In addition, TechSoft offer numerous SOLIDWORKS courses (see page 210).



SOLIDWORKS Certification

SOLIDWORKS provides students with powerful yet intuitive 3D Design and Simulation tools they can use to help them achieve success in their exam courses. Employers will value SOLIDWORKS experience and should students wish to formally show their competence they can take the SOLIDWORKS examinations CSWA-Academic & CSDA. The entry fee is normally £68 + VAT but with a school licence subscription, entry is free. Teachers too can formally show their competence by passing both the CSWA-Academic and TECE Examinations to gain the SOLIDWORKS Accredited Educators Certification.

CSWA-Academic Certified SOLIDWORKS Associate - Academic; CSDA Certified Sustainable Design Associate; TECE Technology Educator Competency Examination; CSWP Certified SOLIDWORKS Professional (must be CSWA-Academic qualified)

Software Information

School Licence

A School Licence for SOLIDWORKS lets up to 60 students use the package simultaneously via a network (*computers must be linked to the one server holding the licence, but there is no limit to the number of computers onto which the software can be installed*) and also provides a stand-alone licence for the teacher's use. Whilst the school licence permits you to run that version of the software forever, we advise schools to keep their School Licence Subscription up to date so that, along with the other benefits of the subscription (see below), the students can still use the software at home.

School Licence Subscription

A school licence subscription provides automatic software updates (annually), free downloadable curriculum resources, **an unlimited number of Student Design Kit (SDK) licences and up to 60 activations of the Student Engineering Kit (SEK) per year.** It also provides one free entry for every student/teacher to the SOLIDWORKS examinations CSWA-Academic, CSDA and CSWP. Teachers also have free entry to the TECE examination. (Any teacher passing both the CSWA-Academic and TECE examinations is awarded the SOLIDWORKS Accredited Educator Certification.)

Minimum Hardware Requirements

2014-2015 Edition: Windows 7/8/8.1 (32 and 64 bit)

2015-2016 Edition: Windows 7/8/8.1/10 (64 bit only)

2016-2017 Edition: Windows 7/8.1/10 (64 bit only)

A full list of system requirements and recommendations can be found at <http://www.solidworks.com/sw/support/hardware.html>

Prices £*

*See Pricing Information on page 2

Secondary Schools & FE Colleges (see overleaf for University and Research licences)

SOLIDWORKS Education Edition (includes 1st year subscription)

SWE-L6150 School Licence (60 networked + 1 stand-alone) **POA**
N.B. Larger licences are available - see University Licences, page 20.

Subscription Renewals (see left for details)

		1 Year	3 Year
SWE-L61/3	School Licence Subscription	POA	POA
SEK & SDK DVDs (School licence subs. holders only - Free download or buy ready to distribute)			
SWE-MKSAK25	SEK & SDK DVDs (Pk of 25)		99.00
SWE-MKSAK100	SEK & SDK DVDs (Pk of 100)		375.00

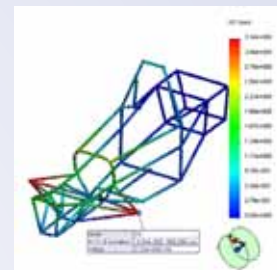
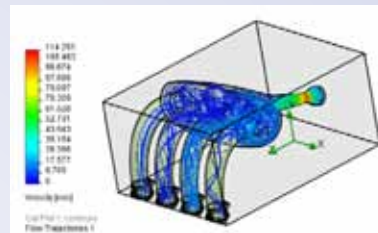
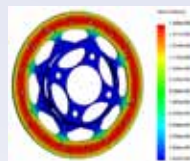
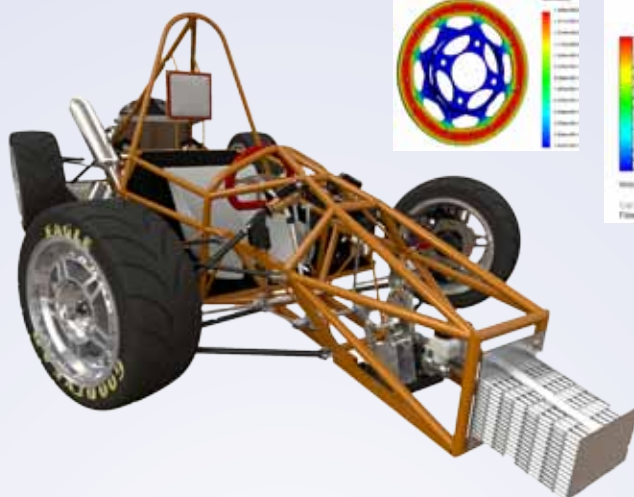
SOLIDWORKS 3D Design, Simulation & Analysis Software

SOLIDWORKS Education Edition - University and Research Licenses



SOLIDWORKS provides the ideal platform for 3D CAD at University level and is certain to meet expectations from commercial partners. A Campus Licence for SOLIDWORKS provides all the CAD functionality needed, at a competitive price and with enough options to create a bespoke solution for learning and research.

As Preferred Education Resellers, TechSoft can provide the knowledge and experience to support course leaders in guiding students towards the qualifications required in modern design & engineering disciplines.



Student Home Use - SEK



A Student Engineering Kit (SEK) is a time-limited, stand-alone, version of the full SOLIDWORKS Education Edition. Each year a campus licence subscription provides a number of one year SEK licences (activations) for use by students and lecturers on their personal laptops/home PCs. The university can distribute the software either by instructing their students to download it free of charge, or by purchasing Student Engineering Kit DVDs.

SOLIDWORKS is designed to be intuitive so the Student Engineering Kit (SEK) and a current subscription will be key to enabling students to develop expertise independently.

Curriculum Resources



Interactive Tutorials are built-in to SOLIDWORKS and project-based Tutorials, Student Guides and Instructor Guides are available for free download via the user home page and MySolidWorks (whilst in subscription).

SOLIDWORKS Certification



Employers will value SOLIDWORKS experience and should students wish to formally show their competence they can take the SOLIDWORKS examinations. With a subscription, one free entry for every student/lecturer to the CSWA-Academic, CSDA, CSWSA-FEA and CSWP examinations is provided.

CSWA-Academic Certified SOLIDWORKS Associate - Academic; CSDA Certified Sustainable Design Associate; CSWSA-FEA Certified SOLIDWORKS Simulation Associate - Finite Element Analysis; CSWP Certified SOLIDWORKS Professional (must be CSWA-Academic qualified)

Software Information

Classroom, Campus and Site Packs

These packs for SOLIDWORKS Education Edition let up to 60, 200, 500 or 2000 students use the package simultaneously via a network (computers must be linked to the one server holding the licence, but there is no limit to the number of computers onto which the software can be installed). Whilst the licence permits you to run that version of the software forever on the network, we advise universities to keep their subscription up to date so that, along with the other benefits of the subscription (see below), the students can still use the Student Engineering Kits. **Up to 60, 200, 500 or 2000 one year Student Engineering Kit (SEK) licences are also provided whilst in subscription.**

Subscription

A subscription provides automatic software updates (annually), free downloadable curriculum resources, up to 60, 200, 500 or 2000 one year Student Engineering Kit (SEK) licences and one free entry for each student/lecturer to the SolidWorks examinations CSWA-Academic, CSDA and CSWSA-FEA. One free entry for every CSWA-Academic qualified student/lecturer to the CSWP examination is also included.

Academic Research Licence

Unlike the Education Edition, the Academic Research Licence does not contain the educational watermark and has no restrictions for use in publications, industry-funded projects and patent applications. It is not only available to university research departments, but also to medical schools and teaching hospitals affiliated with a university. For further information contact TechSoft or see www.techsoft.co.uk/Products/Software/SolidWorksAcademicResearchersPurchasers

Minimum Hardware Requirements

2014-2015 Edition: Windows 7/8/8.1 (32 and 64 bit)
2015-2016 Edition: Windows 7/8/8.1/10 (64 bit only)
2016-2017 Edition: Windows 7/8.1/10 (64 bit only)

A full list of system requirements and recommendations can be found at <http://www.solidworks.com/sw/support/hardware.html>

Prices £*

*See Pricing Information on page 2

Universities & HE Colleges (see page 19 for School & FE College licences)

SOLIDWORKS Education Edition (includes 1st year subscription)

SWE-L60	Classroom Pack (up to 60 students)	POA
SWE-L200	Campus Pack 1 (up to 200 students)	POA
SWE-L500	Campus Pack 2 (up to 500 students)	POA
SWE-L2000	Site Pack (up to 2000 students)	POA

Subscription Renewals

		1 Year	3 Year
SWE-LR60	Classroom Pack Subscription	POA	POA
SWE-LR200	Campus Pack 1 Subscription	POA	POA
SWE-LR500	Campus Pack 2 Subscription	POA	POA
SWE-LR2000	Site Pack Subscription	POA	POA

Student Engineering Kit DVDs (Campus licence subs. holders only - Free download or buy ready to distribute)

SWE-MKSAK25	Student Engineering Kit DVDs (Pk of 25)	99.00
SWE-MKSAK100	Student Engineering Kit DVDs (Pk of 100)	375.00

Academic Research Licence

Please contact TechSoft to discuss your specific requirements and request a quotation.

*Subsidised Prices for UK Educational Establishments only

Easy 3D Manufacturing from SOLIDWORKS, etc.

Visual Toolpath

What is Visual ToolPath?

Visual Toolpath is a 3D machining program designed specifically for the educational user. It has been conceived by TechSoft to meet the 3D manufacturing needs of students and teachers.

How does Visual ToolPath work?

Having designed your 3D masterpiece (in 3D CAD such as SOLIDWORKS) you may well want to manufacture it on your router or milling machine. To do this you need to transfer the 3D file from your design software to the Visual Toolpath software. The effective standard for 3D data transfer is the STL file format, so you simply save the file in STL format in your design software and then open it in Visual Toolpath. You then follow a simple wizard to automatically create the tool paths needed to machine the model. It really is as simple as that.

1 Orientate and Size Model

Once the STL is opened your first task is to orientate the model for machining.

2 Material Size and Margins

Next you need to set the size of material you will be using to machine your model from, and the margin around the model you wish to machine.

3 Roughing Toolpath

4 Finishing Toolpath

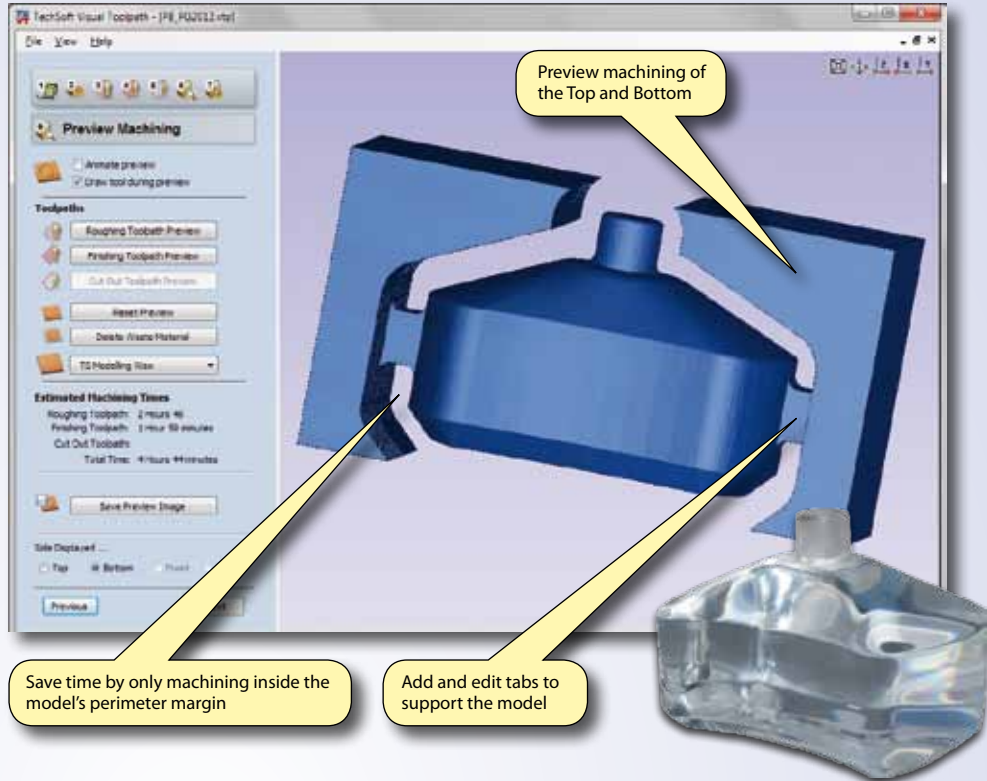
Select your tool from the Tool Database and set the toolpath direction before clicking on *Calculate* to generate the machining toolpaths.

5 Cut Out Toolpath

Although not usually needed this cut-out option can be very useful if you need to profile cut around an STL model.

6 Preview Machining

A manufacturing simulation is not only for entertainment, it can be an important part of the manufacturing process. Whilst it is possible to skip this stage if you wish, the simulation can be used to see if "silly" values have been accidentally set for depths of cut, number of passes, etc. It also allows the user to get an impression of the surface finish and the time taken. Tooling values may easily be changed and another simulation run to see the effects of the changes. This is much easier and quicker (and cheaper) than having to remake the item.



Visual Toolpath has a built-in simulation, which shows the tool movement over the model as if it is being machined.

7 Output Toolpaths

Once you are happy with the machining properties you have created, and have set up the material on the machine, you are ready to output your toolpaths.

What machines can I output to?

STL models processed in Visual Toolpath can be output directly to all Roland 3D capable miller/routers and the TechSoft RouterCAM.

How About Multi-Sided Cutting?

Some 3D objects can be machined from just one side (maybe a simple soap dish). However, many objects may need machining from 2 or more sides (maybe a bar of soap). Visual Toolpath supports either 1, 2 or 4 sided machining. This allows the use of TechSoft's self-centering vice (see page 87).



The software has in-built routines to allow the user to quickly and easily set up the software when machining with the self-centering vice. You can also easily add, and then edit, support tabs to a model. These allow it to be machined from multiple sides, whilst still being held in the block of material.

Why Buy Visual ToolPath?

Most 3D manufacturing software is very powerful but is designed for commercial use. It is not always as user friendly as you might like. Too many options and features can make the whole process complicated and confusing. Visual ToolPath has been created specifically for educational users and is designed to be both intuitive and helpful.

Software Information

Minimum Hardware Requirements

Windows 98 / Me / 2000 / XP / 2003 / Vista / 7 / 8 / 10.

Microsoft recommended minimum hardware specification advised.

Minimum screen resolution 1024 x 768.

Network compatible.

Ordering

In order to avoid software theft, the software is encrypted with the name of the licensed user, typically the name of a person, or the name of an individual establishment.

When ordering please state:

- Name of licensed user/site (max 28 characters, including spaces).
- Address for site licence.

Prices £*

*See Pricing Information on page 2

VS004	TechSoft Visual Toolpath Site Licence	195.00
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Buy with a Self Centering Vice and save £40.00 (see page 87)



**Fast, High Quality,
Photo Engraving Software**

What is PhotoVCarve?

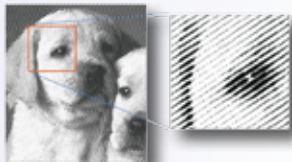
PhotoVCarve is an exciting development in the world of photo-engraving. The software allows you to create amazing engravings of photographs or other bitmap images using the V-Carve process. PhotoVCarve outputs directly to all Roland 3D capable miller/routers and the TechSoft RouterCAM range.



**Engraving Laminate
(Flexible White on Black)**

How does it Work?

A short, 'V'-pointed engraving tool is used together with laminated media that has a black coating over a white substrate. As the engraving tool works it exposes the white below. Because the tool is 'V'-pointed, the deeper you engrave, the wider the exposed white line becomes. PhotoVCarve converts bitmap images into a series of parallel toolpaths and controls depth of cut to create wider (ie., brighter) or narrower (ie., darker) white lines on the material. The effect is similar to the way newsprint uses different size black dots to create a photographic image.



What Materials Can I PhotoVCarve?

TechSoft supply a range of materials suitable for V-Carving but you could create your own. Providing the material is accurately flat, you can experiment by painting or laminating over most standard workshop material.

Can PhotoVCarve do anything else?

As well as engraving photo-images, PhotoVCarve can also be used for other techniques where depth of cut produces unique results:

3D Lithophane Machining

Lithophanes are 3D photographs that when back lit transform into stunning 3D pictures with depth and detail that cannot be seen in a flat 2D photograph.

3D Greyscale Image Machining

PhotoVCarve automatically converts a greyscale image into a 3D height map that machines as a sculpted relief panel.

Software Information

Site Licence

A Site Licence allows a school/college to install the software on any number of computers on the school site.

Minimum Hardware Requirements

Windows 98 / Me / 2000 / XP / 2003 / Vista / 7 / 8 / 10.
Microsoft recommended minimum hardware specification advised.
Network compatible.

Ordering

In order to avoid software theft, the software is encrypted with the name of the licensed user, typically the name of a person, or the name of an individual establishment.

When ordering please state:

- Name of licensed user/site (max 28 characters, including spaces).
- Address for site licence if appropriate.



**Innovative, Creative,
3D V-Carving Software**

What is VCarve?

VCarve allows you to create an exciting 3D carving from a simple 2D image. Routing or engraving using standard tools produces square-edged cuts of a set depth. If you want to replicate the subtlety of hand-carving for more decorative work then VCarve is an ideal and simple solution. VCarve uses a 'V'-pointed engraving tool and automatically controls depth of cut so that engraved lines can be wide (ie., deep) to give bevelled edges or increasingly narrow (ie., shallow) to give sharp edges to corners and delicate serifs for fine font engraving.



How does VCarve Work?

The software has a number of interesting design tools of its own but, at its simplest, most schools will start by importing a vector-based graphic image - 2D Design (see page 12) drawings are ideal. Areas of the design to be carved deeply are then identified and edge-treatments for where 'low' meets 'high' are selected. The machined effect can then be simulated any number of times before committing to machining. Whilst offering sophisticated options, VCarve is user friendly, and has a short learning curve. VCarve outputs directly to all Roland 3D capable miller/routers and the TechSoft RouterCAM range.

What Can You Do with VCarve?

VCarve designs can be added to both hand made products as well as being combined with CAD/CAM.

Moulds for casting

V-Carve the negative parts of the design in jelutong or modelling wax, to create a mould. Cast stunning jewellery pieces, badges or plaques in Precious Metal Clay (PMC, see page 122), pewter or resin.

Decorative inserts in furniture

V-Carve designs directly into wooden furniture parts or create discrete inserts for branding, personalisation or simply decorative effect.



Logos or motifs on CAD/CAM products

Refresh a tried and tested design and make project, by including VCarving as a decorative option.

Signage

Use VCarve to create 3D relief signs. Use the texture toolpath to create an even more interesting hand carved finish.

Prices £*

*See Pricing Information on page 2

VS002	TechSoft PhotoVCarve Site Licence	195.00
VS001	TechSoft VCarve Site Licence	195.00
VS003	TechSoft VCarve & PhotoVCarve Site Licences <i>(Save £95)</i>	295.00



High Specification Laser Cutters and Engravers

Why Invest in a LaserCAM System?

Lasers are about the simplest way possible to get from CAD drawing to finished product. They work with extraordinary accuracy and delicacy, are quick to produce results, and the finished edge is usually just that - finished. With a few important exceptions, lasers will cut and engrave a huge variety of materials, so just about every area of Design and Technology is able to get the benefit. LaserCAM is, essentially, a 2D machine so it will find its place alongside milling and knife cutting machines, to give students a realistic experience of real-world practice, and to give them the right mix of tools for specific applications.



LaserCAM is the only laser cutting & engraving machine with guaranteed direct output from 2D Design V2

The TechSoft Advantage

TechSoft have an exclusive arrangement to supply LaserCAM to the UK Education and we work closely with the manufacturers to ensure that the machines meet all necessary standards for price, safety and quality. TechSoft have developed features in 2D Design V2 to make output direct and seamless - LaserCAM is the only laser cutting and engraving machine on the market to have this 'designed-in' compatibility. TechSoft will install your machine, provide training, and be your first point of contact in case of a problem, so any issues will be dealt with quickly. We are proud of our reputation for excellent customer service and person-to-person contact is an important feature of this. In addition, you will have unlimited access to technical support by phone or email.

So What Can I Cut With a LaserCAM?

Apart from metals and vinyls, most workshop plastics, textiles and graphic materials are fine. Some timber products give inconsistent results due to density, or the resins used in manufacture. There's no harm in experimenting with 'stock' material but for reliable results TechSoft supply laser-quality plywood and MDF in a range of thicknesses. Suitable material up to 12 - 15mm thick will cut well and the power of the laser will largely dictate speed of cut rather than ultimate depth. It is difficult to compare cutting speeds 'on paper' between different models of laser cutter. Suffice to say that LaserCAMs are among the most capable in their class.

Buy with Confidence

A TechSoft LaserCAM package is supplied and installed with everything you need so laser cutting and engraving can start right away. TechSoft have been supplying LaserCAM to schools for over ten years and remain committed to providing the best technology and the highest level of service needed to secure your investment for the long term.



Laser Cutting / Engraving

Laser Buying Guide

A laser system for your school or college will always be a major investment. The right purchasing decision will ensure the best possible technology for your students now and a sustainable investment for the long term. Before making your decision you should consider the following points carefully:

Points to Consider	TechSoft Solution
What will I get for my money?	Everything you need – No Hidden Extras
Budget-price lasers may look attractive but will you receive a pile of boxes and a 'translated' manual to build the machine from? Is the machine supplied with an extraction system (not just a blower), and will it meet UK emission standards? Generic 'Laser' software will severely limit what students can do so 2D Design files will need to be imported. 'What you draw' and 'What you get' will then be down to trial and error.	LaserCAM machines are manufactured exclusively for TechSoft to meet all Educational Safety Standards and we include installation, commissioning and training at no extra cost. The fully automatic extraction system filters out all the harmful gases to emit clean air. All LaserCAMs work directly with 2D Design to output the whole file - including pictures.
Water Cooled V Air Cooled Laser Tube	Quality Assured Air Cooled Lasers
Most of the 'budget' laser cutters now appearing in the UK use cheap water-cooled glass laser tubes. These can cut effectively when new and properly setup, but service-life can be relatively short so frequent replacements are likely to be needed. Costs will add up and you will seldom have a machine that is performing to its full capacity. The external water cooling system needs careful attention too - if the water gets too hot the tube fails, if the tube gets air pockets or bubbles in it, the tube fails.	TechSoft lasers are supplied with Synrad air cooled solid state laser tubes (made in the USA). These high quality devices have built-in cooling fans and will provide a consistent laser output for 4 to 5 years on average. When output has declined significantly, a TechSoft engineer will call to confirm that a new tube is needed and (if required) fit a genuine Synrad factory re-manufactured unit. Once re-calibrated, your LaserCAM will be 'as new'.
Warranty	Fully Inclusive Two Year Warranty
Beware the T&Cs! Check what the warranty covers and for how long. Many schemes show shorter warranty periods for parts that are known to be vulnerable. Is the warranty 'on-site' or will you have to pay for a visit (often by the hour)? Parts may be covered but who pays for an engineer to call?	TechSoft's LaserCAM machines come with a two year warranty on everything supplied (including the laser tube). ANY problem in the first two years (other than those caused by neglect or abuse) and we will fix it – on site at no extra cost. Extended warranties can also be purchased for long term peace of mind.
Extraction	Total Fume Control
Lasers cut by vaporising material and the noxious fumes produced need to be dealt with safely. If a local factory was blowing unfiltered waste into the atmosphere there would (rightly) be uproar from parents and local authorities. It is unthinkable for schools to be supplied with anything less than a system that fully meets health and environmental responsibilities.	LaserCAMs come with a sophisticated extraction system that removes all significant particulates and volatile organic compounds. The system constantly monitors the condition of filters and automatically adjusts suction levels to ensure the right level of extraction. To gain maximum life from the filters and to avoid any residual smells, the filtered exhaust can then safely be vented to atmosphere.
Software Support	Direct Output from 2D Design V2
This may well be very rudimentary proprietary software. If no Windows printer driver is supplied, then the only link with 2D Design will be through a DXF transfer file with its inevitable loss of smooth Bezier curves and bitmap data. It may also be difficult to locate where the image will be cut, and what size it will be.	Support for the LaserCAM range is built right into 2D Design. Power levels, positioning, integration of engraving and cutting, even support for rotary cutting and engraving are all made logical and simple with 2D Design. Because we write the software, we make sure output is direct and you will have complete control.
Air Assist and Other Accessories	Integrated Air Assist, Rotary Attachment Option
Any laser will need an air assist system to keep the lasing area cool and the lens clean. Water cooled lasers will also need a pump and water storage tank. These are not so much 'accessories, as 'essentials' so make sure high quality, purpose made items are supplied. Fish tank pumps and plastic storage boxes are not suitable!	TechSoft only supply top quality commercial items that are designed to last. All essential components are built-in and air assist is integrated into the extractor. This auto-runs when needed to provide a very neat solution. The only accessory customers might choose is the Rotary Attachment which opens up superb opportunities for cylindrical working.
Focusing	Automatic, One-Click Focusing
Setting the laser height needs doing every time you change the thickness of the workpiece. This focuses the beam onto the work and is critical for clean, efficient cutting. Some machines use a manual process to make this a fiddly, time consuming and hit and miss affair.	With a LaserCAM, simply put the material on the bed, press the Autofocus button, and the job is done in just a few seconds.
Safety	Guaranteed Safety Compliance
'Budget' imported lasers are often built to meet lower H&S standards. Any machine supplied in the UK must make it impossible for a child (or adult!) to be exposed to laser emissions or live electrical circuits. Security fastenings, interlocks and safety casings cost money, so make sure corners have not been cut in this essential area.	LaserCAMs comply with all relevant European safety standards, doors are fully interlocked and the cabinet is designed to screen laser emission. Any machine operation presents potential hazards; TechSoft provide full H&S guidance for safe operation of all LaserCAM machines.
Advice, Support and Training	Comprehensive Support that You can Rely On
Simple with some cheaper machines – there isn't any. Setting up the machine, servicing and calibration are skilled jobs and potentially dangerous. When making a major investment, you need the confidence of backing from a well-established company with a proven track record. Be very cautious of any supplier who can't provide references from long-standing, satisfied customers.	We strive to make our support the best in the business. When we deliver a new machine we train you how to use it and how to look after it. Our detailed Training Pack backs this up and will help you to get the best from your investment. If you have a problem, advice is free and unlimited by phone or email. If older machines need a service, we have one flat rate fee plus any parts. Our policy is that we do not leave until everyone is happy.

When you do the comparisons, we are confident that LaserCAM from TechSoft will come out on top.

LaserCAM A3+



A compact machine where the extraction system doubles as a wheeled base unit - ideal if the machine has to be shared between rooms, or if space is really tight.

Specification

Laser Power: 30W
 Axis Travel: 450 x 310 x 150mm
 Max. Head Speed: 1524mm/sec
 Max. Resolution: 1000dpi
 Focus: Auto
 Positioning: Red beam pointer
 Interface: USB
 Weight: 70 kg (LaserCAM only)
 60 kg (Extractor only)
 Dimensions: 690(W)x900(D)x895(H)mm
 (including extraction unit)
 Extractor: TMA-EXT3
 Extractor On/Off: Auto-switching and auto over-run for extraction/air-assist.

LaserCAM A2+



For most schools, this machine offers the ideal balance between work area, cost and space needed in the workshop or studio. 30W of laser power will do everything you ask of it - 60W will do it much faster.

Specification

Laser Power: 30 or 60 W
 Axis Travel: 660 x 495 x 210mm
 Max. Head Speed: 1524mm/sec
 Max. Resolution: 1000dpi
 Focus: Auto
 Positioning: Red beam pointer
 Interface: USB
 Weight: 180 kg (LaserCAM only)
 70 kg (Extractor only)
 Dimensions: 960(W)x890(D)x1020(H)mm
 (NOT including extraction unit)
 Extractor: TMA-EXT1B
 Extractor On/Off: Auto-switching and auto over-run for extraction/air-assist.

LaserCAM A1+



A compact package for large scale work, the A1+ machine features advanced optical systems to ensure consistent performance across the work area. 60W or 100W laser power will clearly be an advantage to achieve maximum throughput for large projects.

Specification

Laser Power: 30, 60 or 100W
 Axis Travel: 1000 x 600 x 230mm
 Max. Head Speed: 1524mm/sec
 Max. Resolution: 1000dpi
 Focus: Auto
 Positioning: Red beam pointer
 Interface: USB
 Weight: 259 kg (LaserCAM only)
 70 kg (Extractor only)
 Dimensions: 1450(W)x820(D)x1064(H)mm
 (NOT including extraction unit)
 Extractor: TMA-EXT1
 Extractor On/Off: Auto-switching and auto over-run for extraction/air-assist.

Optional Extra - Rotary Attachment

A Rotary Attachment is the only accessory you might want in addition to the standard LaserCAM package. We have written an extra dialog box into 2D Design to make it simple to set the design area of your cylindrical shape. To output, just tick the 'Use Rotary' option. A Rotary Table adds a new dimension to laser work allowing great scope for lighting, jewellery and decorative project work - we think its well worth having.



What's Included in Each Package

Complete Extraction System

High capacity, auto-switching extraction unit with integral air-assist compressor. Self-regulating for optimum flow rate. LCD display to monitor filter condition.

Free Education Training Pack worth £120

The Training Pack gives you everything you need to reinforce the training provided on installation and to have the machine earning its keep in the shortest time possible. We have distilled key information into a series of tutorials that will guide you through a series of projects that illustrate the full potential of the machine.



Commissioning & Training

The cost of the LaserCAM also includes commissioning and training on the same day.

Warranty

UK Mainland & Ireland: 2 Year On-Site
 Elsewhere: 2 Year Return and Collect

Prices £*

*See Pricing Information on page 2

MP-LCA3P-30NR	LaserCAM A3+ 30W Package <i>Includes machine, extractor, training pk, commissioning & training</i>	11,500.00
MP-LCA2P-30NR	LaserCAM A2+ 30W Package <i>Includes machine, extractor, training pk, commissioning & training</i>	13,995.00
MP-LCA2P-60NR	LaserCAM A2+ 60W Package <i>Includes machine, extractor, training pk, commissioning & training</i>	18,995.00
MP-LCA1P-30NR	LaserCAM A1+ 30W Package <i>Includes machine, extractor, training pk, commissioning & training</i>	19,995.00
MP-LCA1P-60NR	LaserCAM A1+ 60W Package <i>Includes machine, extractor, training pk, commissioning & training</i>	24,995.00
MP-LCA1P-100NR	LaserCAM A1+ 100W Package <i>Includes machine, extractor, training pk, commissioning & training</i>	34,000.00

Optional Extra

TMA-LC-R	Rotary Attachment for LaserCAM <i>(Please state model when ordering)</i>	550.00
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Recommended Materials

See details of these packs on page 29, and a full range of materials on pages 26 - 29

TPM4-LC3	Mixed Materials Pack for A3+ <i>(Save £15)</i>	203.00
TPM4-LC2	Mixed Materials Pack for A2+ <i>(Save £20)</i>	372.00
TPM4-LC1	Mixed Materials Pack for A1+ <i>(Save £25)</i>	475.00

Recommended Software

2D Design V2 (page 12)

Laser Cutting / Engraving

Extraction & Consumables

Extraction Filters

The extraction system supplied with a laser will need replacement filters. Although estimates of life expectancy can be given, filter life very much depends on what type of materials are cut and, obviously, how often the system is run. We recommend changing the main filter annually and the pre-filter every 6 months regardless of their apparent effectiveness.

For EXT1/EXT1B

TMP-LAS-EXT1PF	Labyrinth pre-filter for EXT1	79.00
TMP-LAS-EXT1PF-2	Pack of 2 Labyrinth pre-filters for EXT1	115.00
TMP-LAS-EXT1CF	Main fume and fine particulate filter for EXT1	172.00

For EXT2

TMP-LAS-EXT3PF	Labyrinth pre-filter for EXT2	66.00
TMP-LAS-EXT3PF-2	Pack of 2 Labyrinth pre-filters for EXT2	122.00
TMP-LAS-EXT1CF	Main fume and fine particulate filter for EXT2	172.00

For EXT3

TMP-LAS-EXT3PF	Labyrinth pre-filter for EXT3	66.00
TMP-LAS-EXT3PF-2	Pack of 2 Labyrinth pre-filters for EXT3	122.00
TMP-LAS-EXT1CF	Main fume and fine particulate filter for EXT3	172.00

For AD400LT/E/+ Serial Nos 1-16 only

TMP-LAS-400PF1 (A1030046)	Deep pleat pre-filter. (75mm inlet for use with machines with serial numbers 1-16)	95.00
TMP-LAS-400CF1 (A1030050)	Main fume and fine particulate filter. (for use with machines with serial numbers 1-16)	150.00

For AD400LT/E/+ Serial Nos 17-209 only

TMP-LAS-400PF (A1030045)	Deep pleat pre-filter. (50mm inlet for use with machines with serial numbers 17-209)	95.00
TMP-LAS-400CF (A1030049)	Main fume and fine particulate filter. (for use with machines with serial numbers 17-209)	150.00

For AD400LT/E/+ Serial Nos 210-261 only

TMP-LAS-400PF (A1030045)	Deep pleat pre-filter. (50mm inlet for use with machines with serial numbers 210-261)	95.00
TMP-LAS-400CF1 (A1030050)	Main fume and fine particulate filter. (For use with machines with serial numbers 210-261)	150.00

For AD400LT/E/+ Serial Nos 262 onwards

TMP-LAS-400PF1 (A1030046)	Deep pleat pre-filter. (75mm inlet for use with machines with serial number 262 onwards)	95.00
TMP-LAS-400CF1 (A1030050)	Main fume and fine particulate filter. (For use with machines with serial number 262 onwards)	150.00

For L350

TMP-LAS-350PF	Pack of pre-filters for L350	70.00
TMP-LAS-350CF	Main fume and fine particulate filter for L350	173.00

For L700

TMP-LAS-700PF	Bag pre-filter for L700	33.50
TMP-LAS-700CF	Main fume and fine particulate filter for L700	205.00

Cleaning Kits



TMP-LAS-CLEANKIT	TechSoft LaserCAM Cleaning Kit. Includes key, lens key, lens cloth, soft cloth, safe buds, gloves.	14.30
TA-HEXTOOL25	2.5mm Hex Tool for adaptor adjustment	2.95
TMS-LAS-LENSKEY	Lens key	1.50
TMS-LAS-CLOTHL	Lens cleaning cloth	1.65
TMS-LAS-CLOTHS	Soft Cloth - Microfibre	1.50
TMS-LAS-SAFEBUDS	Pack of 100 safebuds	4.50
TMS-LAS-GLOVES	100 Medium Vinyl Glove	4.95
TMS-LAS-WIPES	25 Engineers Cleaning Wipes	14.50

Extraction Unit Upgrades

Existing LaserCAM customers may wish to consider purchasing our latest extractor models to benefit from the higher specification.

TMA-EXT3	LaserCAM Extractor EXT3 for A3+/A3	1,750.00
TMA-EXT1B	LaserCAM Extractor EXT1B for A2+/A2	1,595.00
TMA-EXT1	LaserCAM Extractor EXT1 for A1+	1,750.00

CO₂ Laser Tubes

As with all lasers, the laser tube itself is a consumable part which will not last forever. LaserCAM machines are supplied with a 2 year laser tube warranty, but the warranty can be extended (see below).

Extended Laser Tube Warranty

WR-LAS-TB30S	1 year extended warranty for 30W tube	*1,530.00
WR-LAS-TB55D	1 year extended warranty for 55W tube	*2,495.00
WR-LAS-TB60S	1 year extended warranty for 60W tube	*2,795.00

* Available only whilst the laser tube is within warranty.

Replacement Laser Tubes

Replacement/Exchange laser tubes come with a one year warranty. There are two manufacturers of tubes, Deos and Synrad. All 30W LaserCAMs purchased before 20th Nov 2008 were fitted with Deos tubes, those after with Synrad tubes. All 55W LaserCAMs are fitted with DEOS tubes, all 60W LaserCAMs are fitted with Synrad tubes. A tube can only be replaced (exchanged) if it is less than five years old. Current replacement costs (including fitting) are:

TMP-LAS-EXCHANGE30D	Replacement 30W Deos Tube	3,175.00
TMP-LAS-EXCHANGE55D	Replacement 55W Deos Tube	4,995.00
TMP-LAS-EXCHANGE30S	Replacement 30W Synrad Tube	3,830.00
TMP-LAS-EXCHANGE60S	Replacement 60W Synrad Tube	6,995.00

New Laser Tubes

New laser tubes come with a two year warranty. Costs including fitting are:

TMP-LAS-NEWTUBE30D	New 30W Deos Tube	4,800.00
TMP-LAS-NEWTUBE55D	New 55W Deos Tube	9,500.00
TMP-LAS-NEWTUBE30S	New 30W Synrad Tube	4,800.00
TMP-LAS-NEWTUBE60S	New 60W Synrad Tube	10,995.00

Coloured & Clear Cast Acrylic



Cast acrylic gives best results for laser cutting and engraving and is also suitable for milling and engraving.

Colours: Clear, Black, White, Red, Yellow, Blue, Green, Pink, Orange and Purple.



Black White Red Yellow Blue Green Pink Orange Purple

** When ordering, where COL is included in the order code, please change this to specify the actual colour required.*

Nominal Size: 1000 x 600mm (for LaserCAM A1+)

Solid Coloured:

TAAC1-R3-9-P1	Mixed pack of 9 Acrylic Sheets (3mm) <i>One of each colour</i>	119.00
TAAC1-R5-9-P1	Mixed pack of 9 Acrylic Sheets (5mm) <i>One of each colour</i>	185.00
TAAC1-R3-5-COL*	Pack of 5 Acrylic sheets (3mm) <i>All same colour</i>	69.00
TAAC1-R5-5-COL*	Pack of 5 Acrylic sheets (5mm) <i>All same colour</i>	107.00

Clear:

TAAC1-C3-5	Pack of 5 Clear Acrylic Sheets (3mm)	63.00
TAAC1-C5-5	Pack of 5 Clear Acrylic Sheets (5mm)	96.00
TAAC1-C10-5	Pack of 5 Clear Acrylic Sheets (10mm)	177.00
TAAC1-C15-5	Pack of 5 Clear Acrylic Sheets (15mm)	259.00

Nominal Size: 600 x 400mm (for LaserCAM A2+/A2)

Solid Coloured:

TAAC2-R3-9-P1	Mixed Pack of 9 Acrylic Sheets (3mm) <i>One of each colour</i>	51.00
TAAC2-R5-9-P1	Mixed Pack of 9 Acrylic Sheets (5mm) <i>One of each colour</i>	78.00
TAAC2-R3-5-COL*	Pack of 5 Acrylic Sheets (3mm) <i>All same colour</i>	31.00
TAAC2-R5-5-COL*	Pack of 5 Acrylic Sheets (5mm) <i>All same colour</i>	46.00

Clear:

TAAC2-C3-5	Pack of 5 Clear Acrylic Sheets (3mm)	29.00
TAAC2-C5-5	Pack of 5 Clear Acrylic Sheets (5mm)	42.00
TAAC2-C10-5	Pack of 5 Clear Acrylic Sheets (10mm)	74.00
TAAC2-C15-5	Pack of 5 Clear Acrylic Sheets (15mm)	107.00

Nominal Size: 410 x 280mm (for LaserCAM A3+/A3)

Solid Coloured:

TAAC3-R3-9-P1	Mixed Pack of 9 Acrylic Sheets (3mm) <i>One of each colour</i>	29.00
TAAC3-R5-9-P1	Mixed Pack of 9 Acrylic Sheets (5mm) <i>One of each colour</i>	42.00
TAAC3-R3-5-COL*	Pack of 5 Acrylic Sheets (3mm) <i>All same colour</i>	18.00
TAAC3-R5-5-COL*	Pack of 5 Acrylic Sheets (5mm) <i>All same colour</i>	26.00

Clear:

TAAC3-C3-5	Pack of 5 Clear Acrylic Sheets (3mm)	16.50
TAAC3-C5-5	Pack of 5 Clear Acrylic Sheets (5mm)	23.00
TAAC3-C10-5	Pack of 5 Clear Acrylic Sheets (10mm)	39.00
TAAC3-C15-5	Pack of 5 Clear Acrylic Sheets (15mm)	56.00

Transparent Acrylic



Light-gathering for fantastic 'live edge' effects. Suitable for laser cutting and engraving or milling.

Colours: Red, Blue, Yellow, Green, Orange, Purple.



Red Blue Yellow Green Orange Purple

** When ordering, where COL is included in the order code, please change this to specify the actual colour required.*

Nominal Size: 1000 x 600mm (for LaserCAM A1+)

TAAC1-F3-6-P1	Mixed pack of 6 Transparent Acrylic Sheets (3mm) <i>One of each colour</i>	96.00
TAAC1-F5-6-P1	Mixed pack of 6 Transparent Acrylic Sheets (5mm) <i>One of each colour</i>	149.00
TAAC1-F3-5-COL*	Pack of 5 Transparent Acrylic Sheets (3mm) <i>All same colour</i>	81.00
TAAC1-F5-5-COL*	Pack of 5 Transparent Acrylic Sheets (5mm) <i>All same colour</i>	125.00

Nominal Size: 600 x 400mm (for LaserCAM A2+/A2)

TAAC2-F3-6-P1	Mixed pack of 6 Transparent Acrylic Sheets (3mm) <i>One of each colour</i>	42.00
TAAC2-F5-6-P1	Mixed pack of 6 Transparent Acrylic Sheets (3mm) <i>One of each colour</i>	63.00
TAAC2-F3-5-COL*	Pack of 5 Transparent Acrylic Sheets (3mm) <i>All same colour</i>	36.00
TAAC2-F5-5-COL*	Pack of 5 Transparent Acrylic Sheets (5mm) <i>All same colour</i>	53.00

Nominal Size: 410 x 280mm (for LaserCAM A3+/A3)

TAAC3-F3-6-P1	Mixed pack of 6 Transparent Acrylic Sheets (3mm) <i>One of each colour</i>	19.95
TAAC3-F5-6-P1	Mixed pack of 6 Transparent Acrylic Sheets (5mm) <i>One of each colour</i>	34.00
TAAC3-F3-5-COL*	Pack of 5 Transparent Acrylic Sheets (3mm) <i>All same colour</i>	19.95
TAAC3-F5-5-COL*	Pack of 5 Transparent Acrylic Sheets (5mm) <i>All same colour</i>	29.00

N.B. Colours shown are only an indication and all sheet sizes are nominal.

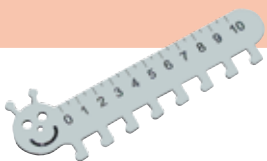
Laser Cutting / Engraving

Materials

Laser Engraving Laminates

Laser engraving laminate is similar in appearance to that used for rotary engraving, but is composed of different materials more suitable for laser marking and cutting.

It is ideal for a range of quick and simple CNC projects such as badges, key fobs, tags, panels, etc. This really is a fantastic medium for students' design work.



Standard Colours:

S1 Red on White	S2 Blue on White	S3 Green on White	S4 Black on White	S5 White on Black	S6 White on Blue
S7 White on Red	S8 Yellow on Black	S9 Grey on White	S10 Walnut on White	S11 Black on Gold	

Metallic Finishes:

E12 Gold on Black	E13 Brushed Copper on Black	E14 Brushed Aluminium on Black	M1 Brushed Silver on Black	M2 Brushed Gold on Black	M3 Black on Gold
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Magnetic Colours:

* When ordering, where COL is included in the order code, please change this to indicate the actual colour required from the charts above.

Nominal size: 800 x 600mm (for LaserCAM A1+)

TAL1-SCOL*	1 Standard Colour Laminate 800 x 600 x 1.3mm	29.00
TAL1-ECOL*	1 Metallic Finish Laminate 800 x 600 x 1.5mm	39.00

Nominal size: 600 x 400mm (for LaserCAM A2+/A2)

TAL2-P1	Mixed pack of 11 Standard Colour Laminate 600 x 400 x 1.3mm One of each S colour	165.00
TAL2-3-SCOL*	Pack of 3 Standard Colour Laminate 600 x 400 x 1.3mm All the same S colour	49.00
TAL2-P2	Mixed pack of 3 Metallic Finish Laminate 600 x 400 x 1.5mm One of each E colour	65.00
TAL2-3-ECOL*	Pack of 3 Metallic Finish Laminate 600 x 400 x 1.5mm All the same E colour	61.00

Nominal size: 400 x 280mm (for LaserCAM A3+/A3)

TAL3-P1	Mixed pack of 11 Standard Colour Laminate 400 x 280 x 1.3mm One of each S colour	89.00
TAL3-5-SCOL*	Pack of 5 Standard Colour Laminate 400 x 280 x 1.3mm All the same S colour	41.00
TAL3-P2	Pack of 3 Metallic Finish Laminate 400 x 280 x 1.5mm One of each E colour	33.00
TAL3-5-ECOL*	Pack of 5 Metallic Finish Laminate 400 x 280 x 1.5mm All the same E colour	52.00

TechSoft also stock magnetic laser engraving laminates which are ideal for creating fridge magnets and other magnetic graphic products.

Nominal size: 610 x 305mm (for LaserCAM A1+/A2+/A2)

TAL-MCOL*	1 Magnetic Finish Laminate 610 x 305 x 0.5mm	21.00
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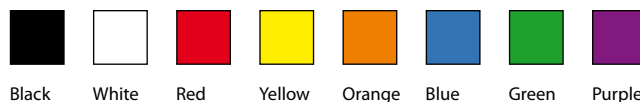
Nominal size: 300 x 280mm (for LaserCAM A3+/A3)

TAL3-P3	Mixed pack of 3 Magnetic Laminate 300 x 280 x 0.5mm One of each M colour	38.00
TAL3-3-MCOL*	Pack of 3 Magnetic Laminate 300 x 280 x 0.5mm All the same M colour	38.00

Plastazote



Plastazote is a flexible closed-cell polyethylene foam that is chemically inert and non-irritant. Unlike other foams, it has a 'sealed' non-absorbent surface and is stiff enough to make safe toys, puzzles and 'fancy dress' items for the most boisterous of children (and grown-ups!) It is widely used for impact absorbing sports-wear products and, in medicine, for padding splints and injury supports. Other uses include insulation, sealing and packaging. Plastazote can be thermo-formed and laser cuts easily, safely and cleanly.



* When ordering, where COL is included in the order code, please change this to specify the actual colour required.

Nominal Size: 1000 x 600mm (for LaserCAM A1+)

TAPZ1-4-P1	Mixed pack of 8 Plastazote sheets (4mm) One of each colour	38.00
TAPZ1-4-COL*	Pack of 8 Plastazote sheets (4mm) All the same colour	38.00
TAPZ1-8-P1	Mixed pack of 8 Plastazote sheets (8mm) One of each colour	58.00
TAPZ1-8-COL*	Pack of 8 Plastazote sheets (8mm) All the same colour	58.00
TAPZ1-12-P1	Mixed pack of 8 Plastazote sheets (12mm) One of each colour	79.00
TAPZ1-12-COL*	Pack of 8 Plastazote sheets (12mm) All the same colour	79.00

Nominal Size: 600 x 400mm (for LaserCAM A2+/A2)

TAPZ2-4-P1	Mixed pack of 8 Plastazote sheets (4mm) One of each colour	17.00
TAPZ2-4-COL*	Pack of 8 Plastazote sheets (4mm) All the same colour	17.00
TAPZ2-8-P1	Mixed pack of 8 Plastazote sheets (8mm) One of each colour	24.00
TAPZ2-8-COL*	Pack of 8 Plastazote sheets (8mm) All the same colour	24.00
TAPZ2-12-P1	Mixed pack of 8 Plastazote sheets (12mm) One of each colour	34.00
TAPZ2-12-COL*	Pack of 8 Plastazote sheets (12mm) All the same colour	34.00

Nominal Size: 410 x 280mm (for LaserCAM A3+/A3)

TAPZ3-4-P1	Mixed pack of 8 Plastazote sheets (4mm) One of each colour	13.00
TAPZ3-4-COL*	Pack of 8 Plastazote sheets (4mm) All the same colour	13.00
TAPZ3-8-P1	Mixed pack of 8 Plastazote sheets (8mm) One of each colour	17.00
TAPZ3-8-COL*	Pack of 8 Plastazote sheets (8mm) All the same colour	17.00
TAPZ3-12-P1	Mixed pack of 8 Plastazote sheets (12mm) One of each colour	21.00
TAPZ3-12-COL*	Pack of 8 Plastazote sheets (12mm) All the same colour	21.00

N.B. Colours shown are only an indication and all sheet sizes are nominal.

Polypropylene Sheets

800 micron polypropylene sheets can be laser cut and scored to create interesting products including packaging. Its flexible property, and the fact that it can be riveted and eyeletted, means that really creative work can be produced.



Thirteen colours are available - Black, White, Red, Royal Blue, Dark Blue, Turquoise, Green, Yellow, Grey, Translucent Lime Green, Translucent Pink, Translucent Purple and Sparkling Natural.

** When ordering, where COL is included in the order code, please change this to specify the actual colour required.*

Nominal Size: 1000 x 600mm (for LaserCAM A1+)

TAPP81-P2	Pack of 11 1000 x 600mm sheets 750/800 mic, polypropylene. <i>One of each colour</i>	79.00
TAPP81-5-COL*	Pack of 5 1000 x 600mm sheets 750/800 mic, polypropylene. <i>All same colour</i>	39.95

Nominal Size: 600 x 400mm (for LaserCAM A2+/A2)

TAPP82-P2	Pack of 11 600 x 400mm sheets 750/800 mic, polypropylene. <i>One of each colour</i>	45.00
TAPP82-10-COL*	Pack of 10 600 x 400mm sheets 750/800 mic, polypropylene. <i>All same colour</i>	42.00

Nominal Size: 410 x 280mm (for LaserCAM A3+/A3)

TAPP83-P2	Pack of 11 410 x 280mm sheets 750/800 mic, polypropylene. <i>One of each colour</i>	26.00
TAPP83-10-COL*	Pack of 10 410 x 280mm sheets 750/800 mic, polypropylene. <i>All same colour</i>	24.00

Laser Grade Birch Plywood

TechSoft stock high quality 4mm, 6mm and 9mm birch plywood which is manufactured specifically for laser cutting. Its edge finish when cut is a golden brown colour, unlike the black charred finish of standard ply. Another advantage of this laser grade ply is that the core material is the same quality as the outside sheets - giving a better cut edge with greater stability (*N.B. 9mm ply may require 2 passes on a 30W laser*).



Nominal Size: 900 x 600mm (for LaserCAM A1+)

TA-PLY41-10	Pack of 10 laser grade ply sheets (4mm) 900 x 600 x 4mm	79.00
TA-PLY61-10	Pack of 10 laser grade ply sheets (6mm) 900 x 600 x 6mm	85.00
TA-PLY91-10	Pack of 10 laser grade ply sheets (9mm) 900 x 600 x 9mm	115.00

Nominal Size: 600 x 400mm (for LaserCAM A2+/A2)

TA-PLY42-10	Pack of 10 laser grade ply sheets (4mm) 600 x 400 x 4mm	39.00
TA-PLY62-10	Pack of 10 laser grade ply sheets (6mm) 600 x 400 x 6mm	45.00
TA-PLY92-10	Pack of 10 laser grade ply sheets (9mm) 600 x 400 x 9mm	55.00

Nominal Size: 410 x 280mm (for LaserCAM A3+/A3)

TA-PLY43-10	Pack of 10 laser grade ply sheets (4mm) 410 x 280 x 4mm	21.00
TA-PLY63-10	Pack of 10 laser grade ply sheets (6mm) 410 x 280 x 6mm	26.00
TA-PLY93-10	Pack of 10 laser grade ply sheets (9mm) 410 x 280 x 9mm	29.00

N.B. The nominal thickness of this material is 4mm, 6mm or 9mm, but this may vary from 3-4mm, 5-6mm and 8-9mm between batches, due to the sanding process.

Medite (Laser Grade MDF)

Different types of MDF vary greatly in composition and this can have a dramatic effect on how they laser cut. Medite is the best type of MDF for laser cutting and so we now stock this often hard to source material.

Medite chair with black spray paint finish



Nominal Size: 1000 x 600mm (for LaserCAM A1+)

TA-MED41-10	Pack of 10 medite sheets (4mm)	38.00
TA-MED61-10	Pack of 10 medite sheets (6mm)	55.00
TA-MED91-10	Pack of 10 medite sheets (9mm)	75.00

Nominal Size: 600 x 400mm (for LaserCAM A2+/A2)

TA-MED42-10	Pack of 10 medite sheets (4mm)	18.50
TA-MED62-10	Pack of 10 medite sheets (6mm)	24.00
TA-MED92-10	Pack of 10 medite sheets (9mm)	32.50

Nominal Size: 410 x 280mm (for LaserCAM A3+/A3)

TA-MED43-10	Pack of 10 medite sheets (4mm)	13.50
TA-MED63-10	Pack of 10 medite sheets (6mm)	16.50
TA-MED93-10	Pack of 10 medite sheets (9mm)	20.50

Image Transfer Board

Image transfer board is medite MDF (ideal for laser cutting) with a special coating on one side to allow images to be transferred onto it using sublimation (see page 114). The process creates a gloss finish image on one side of this medite board.



Students can design, laser cut and then transfer an image to create anything from point of sale displays, to clocks or jigsaws.

Image Transfer Board is available in 3mm thick sheets

TA-ITSB5-3-10	Pack of 10 Image Transfer Boards for sublimation (510 x 360mm)	139.00
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Material Packs

These packs have been created by popular demand to take the hassle out of ordering, and to give a modest cost saving overall. Each pack contains a generous selection of materials particularly suited for the size of LaserCAM listed. Ideal as a basic stock, for back-up and for developing projects using different materials.

TPM4-LC3	Mixed Materials Pack for LaserCAM A3+/A3 (<i>Save £15</i>) Includes 5 sheets laser engraving laminate (3 standard, 2 metallic); 13 sheets polypropylene; 10 sheets 4mm laser grade ply; 10 sheets 4mm medite; 16 sheets 3mm acrylic (9 colour, 1 clear, 6 transparent); 10 sheets 5mm acrylic (9 colour, 1 clear); 8 sheets 4mm plastazote. All sheets 410 x 280mm (400 x 280mm for engraving laminate). Mixed colours.	203.00
TPM4-LC2	Mixed Materials Pack for LaserCAM A2+/A2 (<i>Save £20</i>) Contains 5 sheets laser engraving laminate (3 standard, 2 metallic); 13 sheets polypropylene; 10 sheets 4mm laser grade ply; 10 sheets 4mm medite; 16 sheets 3mm acrylic (9 colour, 1 clear, 6 transparent); 10 sheets 5mm acrylic (9 colour, 1 clear); 8 sheets 4mm plastazote. All sheets 600 x 400mm. Mixed colours	372.00
TPM4-LC1	Mixed Materials Pack for LaserCAM A1+ (<i>Save £25</i>) Contains 3 sheets laser engraving laminate (2 standard, 1 metallic); 13 sheets polypropylene; 5 sheets laser grade ply; 5 sheets medite; 16 sheets 3mm acrylic (9 colour, 1 clear, 6 transparent); 8 sheets 4mm plastazote. All sheets 1000 x 600mm (800 x 600mm for engraving laminate). Mixed colours.	475.00

Plasma Cutting



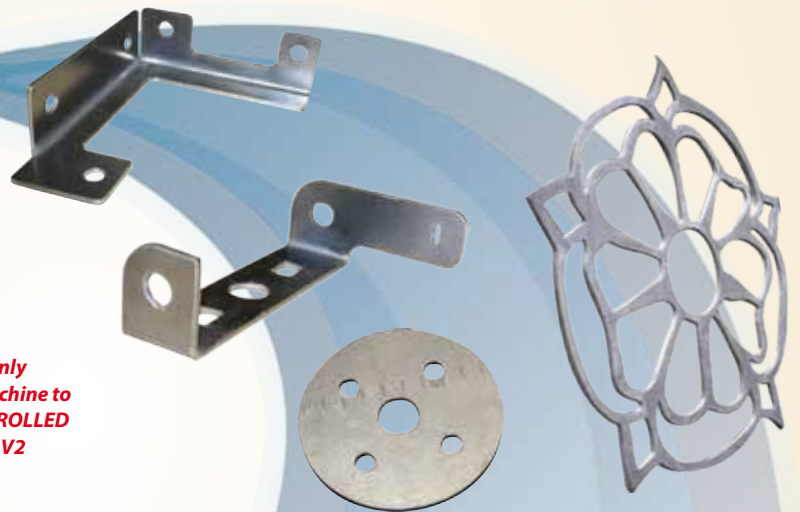
PlasmaCUT is the only plasma-cutting machine to be DIRECTLY CONTROLLED through 2D Design V2

Large, High Speed, Cutting Machine for Mild Steel

What is PlasmaCUT?

Lasers have made a huge impact on student project work but we are often asked "Why can't they be used to cut metals?" In industry, lasers are used routinely for metal-cutting, but high costs and significant risk management issues make the technology unsuitable for educational use – at least at the moment! To meet the need for metal profiling in education, TechSoft are delighted to introduce PlasmaCUT.

PlasmaCUT gives you all the simplicity and speed of laser cutting but without the cost and safety problems associated with high power metal-cutting lasers. PlasmaCUT is a high speed profiling machine that works from 2D CAD files generated in 2D Design V2. Output routine is much the same as any TechSoft machine, but now you can slice your way through mild steel, up to 12mm thick, with no more hassle than it took to slice through card on a CAMM 1.



Safety First and Last

Safety is paramount of course and cutting mild steel has a few more concerns than card-cutting. PlasmaCUT is UK-built and CE marked to meet exacting EU regulations for Health and Safety, and TechSoft have worked closely with the manufacturers to take things even further. The PlasmaCUT 1000 machine is housed in an interlocked protective enclosure to contain stray sparks and particles. For both models there is an integral down-draft fume table and this connects to a high-efficiency extraction system which captures airborne particulates. The extraction unit filters and completely cleans the waste so that it can be safely exhausted internally. PlasmaCUT is not a machine for a regular classroom or design studio, but will fit into any workshop space where there are the usual provisions for hot metal working.

Why invest in a PlasmaCUT?

Engineering departments and specialist engineering schools will clearly be interested in the potential PlasmaCUT has to bring sheet metal cutting up to date with industry-standard CAD/CAM techniques. More widely, many Design and Technology departments have found metalworking quite difficult to incorporate into schemes of work in recent years. PlasmaCUT will fit naturally alongside other CAD/CAM and 'benchwork' techniques, and has the power to revolutionise what students are able to do in their project work.

The TechSoft Advantage

TechSoft's unrivalled knowledge and experience mean that these machines are not simply compatible with, but have been optimised for the UK education market. We are proud of our reputation for excellent customer service and our close liaison with the UK manufacturers means you will have access to unlimited technical support should you need it. If you know how to operate one TechSoft machine you will be well on your way to using PlasmaCUT.



N.B. The Plasma cut table has a laser cut/engraved acrylic top.

The Technology Explained

We are used to three energy states for materials - solid, liquid or gas. Plasma is a fourth state where energy levels are raised further, and gas molecules break into free electrons and positive ions. When these particles collide, enormous energy is released and this is the basis of a Plasma beam. PlasmaCUT uses an inverter-driven plasma torch which creates the beam by forming an electrical arc in a high-velocity, highly focussed jet of compressed air, and it is this which so easily pierces mild steel sheet.

The main chassis of PlasmaCUT is built from precision-cut steel for rigidity, with aluminium being used where possible for the motion system. By keeping mass low, the motion system can accelerate rapidly which results in accurate hole-cutting and clean corners. The plasma torch is held on a pneumatically-operated cutter post which gently presses onto the work with five rollerball units; this ensures the torch is consistently held at the right height for clean cutting and easy starting.

PlasmaCUT has its own PC-based controller accessed through a 15" LCD touch screen. This is used to import files from 2D Design V2 ready to machine.

Commissioning, Training and Maintenance

PlasmaCUT machines are commissioned on-site by trained engineers who will remain for as long as necessary to ensure teaching and technician staff are happy with all operation, safety and maintenance issues. Maintenance is largely a matter of 'housekeeping' - the fume table will need to be cleared of off-cuts and dust from time to time, and bearing surfaces and slides will need to be wiped clean. The compressor and extraction system will also need monitoring to check that connections are good and filters are serviceable.

What About Running Costs?

Using a PlasmaCUT is unlikely to have a significant impact on energy costs in most schools. The plasma torch will last indefinitely, but the torch electrode and tip will need replacing after about 500 piercings. Replacements are not expensive and an annual budget of a few hundred pounds should be more than enough to keep a PlasmaCUT going in a busy department.

Only for Mild Steel?

Emphatically - yes! Plasma torches will cut a vast range of materials but the waste products will include metal powders and oxides. Mix them together and you have the basis of Thermite - an extremely dangerous, potentially explosive, compound. **For this reason, it is extremely important that PlasmaCUT is used exclusively for mild steel.**



What's Included

Accessories

- Fully Interlocked Safety Case (PlasmaCUT 1000 only)
- Mobile Extractor (worth £2,150 + VAT)
- Air Compressor (worth £625 + VAT)
- PC-based controller
- 15" Interactive touch screen LCD display controller
- Driver software - shows real time display of job progress

Commissioning & Training

The cost of the PlasmaCUT also includes commissioning and training on the same day.

Warranty

UK Mainland & Ireland: 2 Year On-Site
Elsewhere: 2 Year Return and Collect

The 2 year warranty covers all electrical and mechanical systems and the plasma torch, but not the torch electrode and nozzles which are deemed 'consumable'.

PlasmaCUT 1000/2000



Specification	PlasmaCUT 1000	PlasmaCUT 2000
Plasma-Cutting Torch:	Thermal Dynamics Cutmaster A10	
Piercing Thickness:	Up to 12mm mild steel	
Power Output:	20-60A	
Axis Travel:	1000 x 1000mm	2000 x 1000mm
Max Head Speed:	267mm/sec (16,000mm/min)	
Interface (to PC Controller):	USB or Ethernet	
Dimensions (mm):	1680(W) x 1600(D) x 1780(H) (including safety case)	1520(W) x 2500(D) x 1780(H) (no safety case)
Overall Footprint: (PlasmaCUT, Controller, Extractor & Air Compressor)	2660(W) x 2116(D)mm	2500(W) x 2420(D)mm
Power Requirements:	415V 3ph @ 32A (PlasmaCUT) 2 x 240V 1ph @ 13A (Compressor & Computer) 240V 1ph @ 16A (Extraction)	

Prices £*

*See Pricing Information on page 2

Machine Packages

MP6-PC-1T	PlasmaCUT 1000 Package Includes safety case, extractor (worth £2,150), air compressor (worth £625), commissioning and training	20,995.00
MP6-PC-2T	PlasmaCUT 2000 Package Includes extractor (worth £2,150), air compressor (worth £625), commissioning and training	21,995.00

Consumable Parts

TMP-PC-TIP40A	40A Tip for PlasmaCUT	4.50
TMP-PC-ELECTRODE	Torch Electrode	7.00
TMP-PC-BED20	20 Bed Strips (1215 x 55 x 1mm steel)	45.00
TMP-PC-OIL1	Alt-air piston oil, 1 litre (for Compressor)	18.50
TC-PC-GLOVE1	Pair of Welding Gauntlets	4.95

Mild Steel Sheets

TAMS1-P1	5 sheets 1000 x 1000mm Mild Steel. One each of 1mm, 2mm, 3mm, 4mm, 5mm thickness	325.00
TAMS1-1-4	4 sheets 1000 x 1000 x 1mm Mild Steel	110.00
TAMS1-2-4	4 sheets 1000 x 1000 x 2mm Mild Steel	149.00
TAMS1-3-4	4 sheets 1000 x 1000 x 3mm Mild Steel	205.00
TAMS1-4-2	2 sheets 1000 x 1000 x 4mm Mild Steel	185.00
TAMS1-5-2	2 sheets 1000 x 1000 x 5mm Mild Steel	240.00
TAMS1-6-2	2 sheets 1000 x 1000 x 6mm Mild Steel	299.00
TAMS1-8-1	1 sheet 1000 x 1000 x 8mm Mild Steel	195.00
TAMS1-10-1	1 sheet 1000 x 1000 x 10mm Mild Steel	235.00

Recommended Software

2D Design V2 (page 12)

Knife Cutting

Machine Comparison Chart

Machine	Page	Price	Cut Area	Cut Speed	Force	Card	Cut / Score
STIKA							
SV-8E	33	£350	160 x 1000mm	40mm/s	Fixed	n/a	Cut
SV-12E	33	£555	250 x 1000mm	40mm/s	Fixed	n/a	Cut
SV-15E	33	£695	340 x 1000mm	100mm/s	Fixed	n/a	Cut
CAMM 1							
GS-24E	35	£1,195	584 x 25000mm	500mm/s	30-350g	300 micron	Cut & Score
GX-300	35	£2,345	737 x 25000mm	850mm/s	20-350g	300 micron	Cut & Score
GX-500	35	£3,445	1195 x 25000mm	850mm/s	20-350g	300 micron	Cut & Score
VersaSTUDIO							
BN-20	36	from £4,995	480 x 25000mm	150mm/s	30-300g	300 micron	Cut & Score
TrueVIS							
SG-300	39	from £7,370	762 x 25000mm	300mm/s	30-500g	300 micron	Cut
SG-540	39	from £9,870	1371 x 25000mm	300mm/s	30-500g	300 micron	Cut
VG-540	39	from £15,675	1371 x 25000mm	300mm/s	30-500g	300 micron	Cut
VG-640	39	from £17,175	1625 x 25000mm	300mm/s	30-500g	300 micron	Cut

Machine	Page	Price	Print Width	Print Speed	Alignment	Connection	2D Design Output
STIKA							
SV-8E	33	£350	Cut Only	n/a	Manual	USB	Direct Control
SV-12E	33	£555	Cut Only	n/a	Manual	USB	Direct Control
SV-15E	33	£695	Cut Only	n/a	Manual	USB	Direct Control
CAMM 1							
GS-24E	35	£1,195	Cut Only	n/a	Optical	USB	Direct Control
GX-300	35	£2,345	Cut Only	n/a	Optical	USB	Direct Control
GX-500	35	£3,445	Cut Only	n/a	Optical	USB	Direct Control
VersaSTUDIO							
BN-20	36	from £4,995	480mm		Auto & Optical	USB	Direct Control
TrueVIS							
SG-300	39	from £7,370	762mm	< 9.4m ² /hr	Auto	Ethernet	via VersaWorks Dual*
SG-540	39	from £9,870	1371mm	< 9.4m ² /hr	Auto	Ethernet	via VersaWorks Dual*
VG-540	39	from £15,675	1371mm	< 32.0m ² /hr	Auto & Optical	Ethernet	via VersaWorks Dual*
VG-640	39	from £17,175	1625mm	< 34.8m ² /hr	Auto & Optical	Ethernet	via VersaWorks Dual*

*VersaWorks Dual is supplied with the machine



Roland Knife Cutters are the only knife cutting machines to be DIRECTLY CONTROLLED from 2D Design V2

User Friendly, Low Cost Vinyl Cutters

It's easy to see why these are among the best-loved pieces of equipment we sell. We frequently come across schools still getting regular and valuable use from quite elderly models even if they have upgraded to larger machines in other areas of the department. The Stika is a compact, child-friendly machine that still has the power to fascinate as it steadily cuts out children's design work with a degree of precision that could never be achieved by hand.

Many primary schools have found a Stika to be an ideal and simple tool for pupils to take their first steps with genuine CAD/CAM activity. They work in just the same way as their bigger counterparts and can even be used for print-and-cut work by using the manual alignment tool provided with each machine. Being lighter in construction, Stikas will not cut card or plastics but will happily cope with the full range of vinyls and applied media including Ceramicon and Cutronic Foil.

Three models are available and these differ only in their capacity so you will need to check the available sizes of media you are likely to use when making your choice. The largest machine, the SV-15E, cuts at more than double the speed of the smaller models so this too needs bearing in mind if throughput and avoiding bottlenecks is a priority.

Stika SV-8E

Ideal for Education



The ideal, low cost, starter machine for real CAD/CAM activity. The perfect partner for 2D Primary as well as 2D Design, and for making small-scale stickers, labels and iron-on logos in a workshop or studio area.

Specification

Max plotting area: 160 x1000mm
 Max plotting speed: 40mm/sec
 Print Alignment: Manual
 Interface: USB Interface
 Dimensions: 340(W)x205(D)x115(H)mm
 Weight: 2.2kg

Stika SV-12E



It's still a child-friendly Stika but bigger and able to use media (maybe) bought for a larger machine. This makes it the perfect back-up for an over-worked CAMM 1 as well as an excellent medium-sized knife cutter in its own right.

Specification

Max plotting area: 250 x1000mm
 Max plotting speed: 40mm/sec
 Print Alignment: Manual
 Interface: USB Interface
 Dimensions: 440(W)x205(D)x115(H)mm
 Weight: 2.7kg

Stika SV-15E



Largest of all, the SV-15E allows A3-sized media to be handled without trimming and several projects can be 'nested' for economy. The machine cuts at twice the speed of its smaller siblings making it a serious contender.

Specification

Max plotting area: 340 x1000mm
 Max plotting speed: 100mm/sec
 Print Alignment: Manual
 Interface: USB Interface
 Dimensions: 522(W)x205(D)x115(H)mm
 Weight: 3.3kg



What's Included

Free Education Training Pack worth £55

The Training Pack gives you everything you need to get the machine out of the box and earning its keep in the shortest time possible. We have distilled key information into a series of tutorials that will guide you through setting-up, and then a series of projects that illustrate the full potential of the machine. Each pack contains a project CD, a booklet to guide you and a selection of materials. Completing the Training Pack is not onerous; it will provide a sample set of project ideas - some of which are shown below - and the confidence to develop your own ideas.



Warranty

UK Mainland & Ireland: 1 Year Return to Base
 Elsewhere: 1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

Stika Machines

MP-STIKA-SV8E	Roland Stika SV-8E (inc TechSoft Training Pk)	350.00
MP-STIKA-SV12E	Roland Stika SV-12E (inc TechSoft Training Pk)	555.00
MP-STIKA-SV15E	Roland Stika SV-15E (inc TechSoft Training Pk)	695.00

Accessories

See details of these cutters and our full range of accessories on pages 48-49

TA-CMC	Carbide Cutter x 1	14.95
TA-CMC-5	Carbide Cutter x 5	59.95

Recommended Materials

See details of these packs on page 47, and our full range of materials on pages 40 - 47

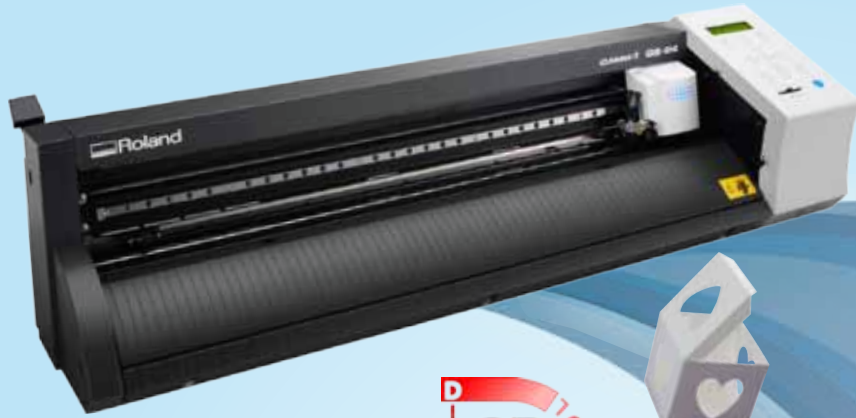
TPM-SV8	Materials Pack for SV-8E (Save £5)	149.00
TPM-SV12	Materials Pack for SV-12E (Save £7)	176.00
TPM-SV15	Materials Pack for SV-15E (Save £7)	199.00

Recommended Software

2D Design V2 (page 12), 2D PCB (page 14) and 2D Primary (page 16)

Knife Cutting

Roland CAMM 1



Versatile and Popular Cutting Machine for Vinyl, Card, etc.

Roland Knife Cutters are the only knife cutting machines to be DIRECTLY CONTROLLED from 2D Design V2



What is a Knife Cutter?

A good quality knife-cutter is the ideal entry point for developing CAD/CAM as an important strand in the Design and Technology curriculum. The machines are quiet and inherently safe to use which makes them the most child-friendly option for a huge variety of project outcomes in just about every area of the subject. This versatility and a low initial cost means that almost any department can get started with real CAD/CAM activity even if budgets do not stretch to milling or laser systems. But the machines are far more than entry level tools and they will never be made redundant by new or different technologies. Knife cutting is the only way to cut delicate 'applied media' in vinyl and only knife cutters can offer registration mark recognition and the fine control needed for print and cut work.

Why Choose a CAMM 1?

Roland CAMM 1 machines have set the standard for school knife cutters since their introduction over 17 years ago. The GS-24 is the latest guise of this benchmark machine and it features several significant improvements. Servo motors now give even faster and smoother cutting, while preserving pin-point accuracy. Roland's Optical Print Alignment System (OPAS) is standard on all GS-24s - this allows students to exploit high quality colour printing from modern ink-jet or laser printers, and to align the printed graphics to a cutting path for bespoke stickers, labels, logos and packaging products. The GS-24E handles media from matchbox-size off-cuts, to 584mm widths up to 25m long, so it will accommodate any of the roll or sheet materials TechSoft supply with no trimming and no wastage. For print-and-cut work this means A4 and A3 printed sheets are no problem and, if you have access to a large format printer, you can even print and cut A2 size nets, stencils, etc. 2D Design V2 has been designed to work with OPAS. Once the design page has been set to match the GS-24, all the machine settings are automatically sent to the machine on output - no buttons to press. The maximum speed of 500mm/sec means that simple individual projects will cut in a few moments and large or 'nested' sets of class work will take minutes at the most.

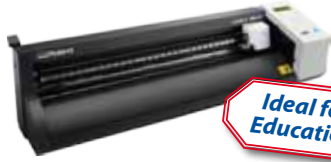
Which CAMM 1 Do I Need?

Most schools and colleges will find that a GS-24E will give them everything they need in a knife cutter at an excellent price with no compromise to capacity or performance.



N.B. Pens can replace the cutter for simple illustrations. However all printing must be done on an independent printer before score & cut lines are made on the CAMM 1.

CAMM 1 GS-24E



Ideal for Education

The ideal machine for most busy departments. Fast enough for large or complex vinyl work; cuts printed card up to A2 size using optical print alignment. Robust and well-proven in schools, the GS-24E comes with a renowned TechSoft Training Pack.

Specification

Max plotting area:	584 x 25000mm
Max plotting speed:	500mm/sec
Print Alignment:	Optical System
Interface:	USB
Motor:	Digital Servo
Dimensions:	860(W) x 319(D) x 233(H) mm
Weight:	13.5kg

CAMM 1 Pro GX-300



A super-fast, high power knife-cutter with advanced features for the most demanding commercial applications. Uses optical print alignment for printed media up to A1 size. Ideal for large-scale work, possibly in heavier material.

Specification

Max plotting area:	737 x 25000mm
Max plotting speed:	850mm/sec
Print Alignment:	Optical System
Interface:	USB & Serial
Motor:	Digital Servo
Dimensions:	1144(W) x 727(D) x 1113(H) mm
Weight:	44kg

CAMM 1 Pro GX-500



The largest capacity knife-cutter in the range. It has all the speed and power of its smaller siblings but with the ability to align-and-cut printed media up to A0 size.

Specification

Max plotting area:	1195 x 25000mm
Max plotting speed:	850mm/sec
Print Alignment:	Optical System
Interface:	USB & Serial
Motor:	Digital Servo
Dimensions:	1602(W) x 727(D) x 1113(H) mm
Weight:	55kg

What's Included

Free Education Training Pack worth £95 (GS-24E Only)

The Training Pack gives you everything you need to get the machine out of the box and earning its keep in the shortest time possible. We have distilled key information into a series of tutorials that will guide you through setting-up, and then a series of projects that illustrate the full potential of the machine. Each pack contains a project CD, a booklet to guide you and a selection of materials. Completing the Training Pack is not onerous; it will provide a sample set of project ideas - some of which are shown below - and the confidence to develop your own ideas.



Warranty

UK Mainland & Ireland:	2 Years On-Site
Elsewhere:	2 Years Return and Collect

Prices £*

*See Pricing Information on page 2

CAMM 1 Machines

MP-CAMM1-GS24E	Roland CAMM 1 GS-24E (inc. TechSoft Training Pack)	1,195.00
MP7-CAMM1-GS24E	CAMM 1 GS-24E Workstation Package Includes Machine, TechSoft Training Pack, TechSoft Workstation with cupboards and in-built sockets, drawers, shelves and storage space for computer (see page 184).	2,770.00
RL-CAMM1-GX300	Roland CAMM 1 GX-300 (supplied with stand)	2,345.00
RL-CAMM1-GX500	Roland CAMM 1 GX-500 (supplied with stand)	3,445.00

Recommended Extras

TF-WS3-C2	TechSoft Workstation for Knife Cutting. See page 184	1,575.00
RL-STAND2	Stand for GS-24E (same as stand for BN-20, see page 37)	299.00

Recommended Materials

See details of this pack on page 47, and our full range of materials on pages 40 - 47

TPM-GX24	Mixed Materials Pack for GS-24E <i>Save £10</i>	285.00
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Accessories

See details of these cutters and our full range of accessories on pages 48 - 49

TA-CMC	Carbide Cutter x 1	14.95
TA-CMC-5	Carbide Cutter x 5	59.95

Recommended Software

2D Design V2 (page 12), 2D PCB (page 14), 2D Primary (page 16)

Print and Cut

Roland VersaSTUDIO BN-20



Bringing Print and Cut to the Desktop



The Versa STUDIO BN-20 Metallic Configuration is the only print and cut machine to be DIRECTLY CONTROLLED from 2D Design V2

VersaSTUDIO in Education

The VersaSTUDIO BN-20 is what design departments have been waiting for! A neat desktop machine which delivers durable, high-quality print results then (for lighter media) cuts out the design in one seamless operation. TechSoft are delighted to introduce this breakthrough in print and cut technology from Roland DG.

The VersaSTUDIO BN-20 is (in effect) two machines in one. As a large-format printer, it uses advanced Eco-Sol inkjet technology so low-odour, high quality and durability is assured. As a knife-cutter VersaStudio BN-20 has all the capability and features of the hugely popular Roland CAMM 1 range. Both features are controlled from 2D Design and output can be print only (for banners or posters), cut only (for vinyl media, stencils, etc.) or print-and-cut (for printed stickers, labels and custom graphics). For packaging work, you will need our specially formulated 'Printable Card for Eco-Sol Inks' (see page 43) and for this, output is best handled in two operations. Thicker media needs more time to let the print dry (whilst drying the machine can of course be used to print other jobs) so best results are achieved by printing with crop marks, allowing drying time and then cutting using BN-20's optical registration system.

Materials and Applications

TechSoft supply a wide range of media for the BN-20 so production can target a broad customer base. For textiles, heat-transfer media can be printed in vibrant colour and then contour-cut ready for heat pressing to the garment. As a wide format printer, the BN-20 is a valuable, versatile resource for creating banners, posters and artwork.

The BN-20 will handle media up to 505mm width so will be ideal for producing batch runs of vinyl graphics from roll material. In-house production of window signage, promotional stickers, vehicle wraps and floor graphics has never been easier or so affordable. A2 media capability, of course, makes the BN20 ideal for printing card packaging nets. Once dry, the same machine will then cut and score (or crease) the card for perfect results.



Merit Stickers in vinyl



Print and Cut Packaging



Vinyl stickers on a 3D printed prototype



Vinyl Stickers on a window



Peelable Vinyl



Vinyl graphic decoration



Banner



Canvas Print



Print and Cut Packaging



Iron-on Vinyl logo

VersaSTUDIO BN-20



Compact print-and-cut technology for superb results and maximum versatility. Large format-printing and CNC knife-cutting capability in a neat, desktop package.

Specification

Print Resolution:	Max. 1440dpi
Print Ink:	Eco-Sol
Max Print Width:	480mm
Max Cutting Speed:	150mm/s
Interface:	USB
Dimensions:	995(W) x 585(D) x 291(H)mm
Weight:	35kg

Stand for BN-20



If desk space is at a premium, this robust stand will securely support the VersaSTUDIO BN-20 while providing a clear path for the printed media to escape. The stand features powder coated steel components for a long life and smart appearance.

Stand Specification

Dimensions:	780(W) x 530(D) x 840(H)mm
Weight:	12kg

Workstation Package



A smart and robust TechSoft workstation containing space for a PC and storage for the materials needed for convenient operation of the BN-20. Integral wiring and sockets deal with cable management so mains connection is by a single 13A plug. Mounted on locking castors it provides a portable plug-and-play resource.

Workstation Specification

Dimensions:	1400(W) x 800(D) x 850(H) mm
Weight:	350kg

Printing Card Packaging Nets

Print and Cut card packaging is a two stage process direct from 2D Design. Print the card together with registration marks, allow to dry, then re-insert into the BN-20 to score (or crease) and cut.



Should I Choose the Metallic Configuration?

The BN-20 delivers superb print quality using CMYK ink technology and if desired, metallic silver. Metallic silver print resembles polished-chrome and overprinting in colour adds a further dimension, shining through to give any number of stunning pearlescent or metallic effects.

On purchase, you must decide whether you need Metallic Silver ink, as the machine is factory configured accordingly. A BN-20 configured for Metallic Silver cannot be re-configured for other colours (or vice-versa), so choose carefully!

N.B. A third option, a white ink configuration, is also available on request for output from Roland VersaWorks, but the direct File > Print routine from 2D Design V2 is not available with this.

What's Included

Software

Roland R - Works Software (basic design software)
 Roland VersaWorks Software (print management software)
 Windows Printer Driver

Warranty

UK Mainland & Ireland: 1 Year On-Site
 Elsewhere: 1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

VersaSTUDIO Machines

MP3-VERSA-BN20	Roland VersaSTUDIO BN-20 4 Colour Configuration (inc 5 cartridges - 1 black, 1 cyan, 2 magenta and 1 yellow)	4,995.00
MP2-VERSA-BN20	Roland VersaSTUDIO BN-20 5 Colour Metallic Configuration (inc 5 cartridges - 1 black, 1 cyan, 1 magenta, 1 yellow & 1 metallic silver)	5,075.00
MP8-VERSA-BN20	BN-20 4 Colour Configuration Workstation Package. Includes Machine, 5 cartridges (1 black, 1 cyan, 2 magenta, 1 yellow), TechSoft Workstation with cupboards and in-built sockets, drawers, shelves and storage space for computer (see page 184).	6,700.00
MP7-VERSA-BN20	BN-20 5 Colour Metallic Configuration Workstation Package. Includes Machine, 5 cartridges (1 black, 1 cyan, 1 magenta, 1 yellow & 1 metallic silver), TechSoft Workstation with cupboards and in-built sockets, drawers, shelves and storage space for computer (see page 184).	6,650.00

Recommended Extras

TF-WS3-C2	TechSoft Workstation for Knife Cutting (see page 184).	1,575.00
RL-STAND2	Stand for BN-20	299.00

Recommended Materials

See details of this pack on page 47, and our full range of materials on pages 40 - 47

TPM-BN20	Mixed Materials Pack for BN-20 <i>Save £10</i>	286.00
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Accessories

See details of these cutters and our full range of accessories on pages 48 - 49

TA-CMC	Carbide Cutter x 1	14.95
TA-CMC-5	Carbide Cutter x 5	59.95

Recommended Software

2D Design V2 (page 12), 2D PCB (page 14)



Printing & Cutting, All in One Machine

What is TrueVIS?

It's best to think of TrueVIS as a high quality large format printer as well as being a knife cutter. If you've ever wondered how those full size 'vehicle wraps' are produced where sharp, photographic advertising images are put onto vans, trucks and buses then there's a good chance that they came from a TrueVIS. The machine prints images onto vinyl and then cuts them in exactly the right shape to fit the vehicle. A modern print-shop will use the TrueVIS to batch-produce self-adhesive stickers, labels, point of sale displays, floor graphics, signage and heat transfer images for interior decoration and garments. When you check the working width of these machines you will see that a few metres of print run will produce hundreds of high quality peel-and-stick product labels. TrueVIS has so many uses that a commercial printer couldn't live without one and, indeed, this latest generation of machines from Roland have proved a phenomenal success worldwide.

TrueVIS in Education

TrueVIS delivers superb print quality for banners, posters, photographs or digital artwork, so has huge potential for improving the quality and scale of school/college displays, signage and promotional material. It will enable professional quality graphics to be applied to any manner of projects in Graphics or Product Design, and make the production of class sets of digital graphic products a swift and efficient operation. TrueVIS uses advanced four-colour inkjet technology but needs special media to achieve high resolution printing.

Both SG and VG TrueVIS machines will print well onto our specially formulated 'Printable Card for TrueVIS Inks' (see page 43). Due to the solvent nature of the inks, neither will print onto standard card. Both will cut card well but TrueVIS machines are not ideally suited to printing and cutting card in one operation, eg., for card packaging nets. This process can be achieved using a TrueVIS but, if this is your primary need, the VersaSTUDIO BN-20 or Roland CAMM 1 GS-24E machines provide more flexible options using their optical print alignment capabilities and control from 2D Design V2.

Materials and Applications

A range of special materials are available for TrueVIS and these include self-adhesive vinyls, poster paper, printable iron-on media, water transfer paper, banner materials and a textured canvas to give printed posters the appearance of a traditional painter's canvas. Details of these are given on pages 40-49. A TrueVIS is probably going to be a whole-school resource as much as a great tool for Design and Technology, Graphics and Art. It has huge potential for Business and Enterprise activities and would be a valuable shared resource for a regional Hub School, CLC or Professional Development Centre.



Vinyl decoration



Vinyl Stickers



Iron-on Vinyl logo



Canvas print



Vinyl Merit Stickers



Roll-up Banner



Vinyl graphic decoration



Vinyl stickers on a 3D Printed prototype

TrueVIS SG-300



Ideal for Education

The entry level SG-300 delivers excellent print quality on media up to 760mm wide. Print and cut speeds are sufficient for a busy print-shop, so should be more than adequate in an educational setting.

Specification

Print Resolution:	Max. 90dpi
Print Speed:	Up to 9.4m ² /hr
Print Ink:	TrueVIS Ink
Max Print Width:	762mm
Max Cutting Speed:	300mm/s
Interface:	Ethernet
Dimensions:	2070(W) x 745(D) x 1310(H)mm
Weight:	147kg

TrueVIS SG-540



The same print-and-cut technology as the SG-300 but nearly double the print width. Print speed is increased slightly, thus maintaining high productivity over the larger area.

Specification

Print Resolution:	Max. 900dpi
Print Speed:	Up to 9.4m ² /hr
Print Ink:	TrueVIS Ink
Max Print Width:	1371mm
Max Cutting Speed:	300mm/s
Interface:	Ethernet
Dimensions:	2685(W) x 745(D) x 1310(H)mm
Weight:	178kg

TrueVIS VG Series

Whether you need large scale, high volume production, photo-realistic flesh tones or previously impossible metallic print effects, the new TrueVIS VG series can deliver. There are two sizes of machines each with three different ink configurations to accommodate your department's specific requirements.

Specification

Print Resolution:	Max. 900dpi
Print Speed:	Up to 32.0m ² /hr (VG-540) Up to 34.8m ² /hr (VG-640)
Print Ink:	TrueVIS Inks (8, 7 or 4 Colours)
Max Print Width:	1371mm (VG-540) 1625mm (VG-640)
Max Cutting Speed:	300mm/s
Interface:	Ethernet
Dimensions VG-540:	2685(W) x 745(D) x 1310(H)mm
Dimensions VG-640:	2945(W) x 745(D) x 1310(H)mm
Weight:	191kg (VG-540) 205kg (VG-640)

Prices £*

*See Pricing Information on page 2

TrueVIS Machines

MP-TV-SG300	Roland TrueVIS SG-300* <i>(Includes Stand, Commissioning & 2 Hours Training UK Mainland Only)</i>	6,995.00
MP-TV-SG540	Roland TrueVIS SG-540* <i>(Includes Stand, Commissioning & 2 Hours Training UK Mainland Only)</i>	9,495.00
MP-TV-VG540	Roland TrueVIS VG-540* <i>(Includes Stand, Roll-Up System, Commissioning & 2 Hours Training UK Mainland Only)</i>	14,995.00
MP-TV-VG640	Roland TrueVIS VG-640* <i>(Includes Stand, Roll-Up System, Commissioning & 2 Hours Training UK Mainland Only)</i>	16,495.00

Ink Configuration for TrueVIS SG Series

* Ink must be purchased separately

RLP-TV-SG4C1	Pack of 4 TrueVIS 500ml Ink Cartridges for SG-300/540 + 1 500ml Cleaning Cartridge (Cyan, Magenta, Yellow, Black)	375.00
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Ink Configuration for TrueVIS VG Series

* Ink must be purchased separately. One of the following configurations must be selected at time of purchase. (The configuration cannot be changed at a later date).

RLP-TV-VG4C1	Pack of 8 TrueVIS 500ml Ink Cartridges for VG-540/640 (4 Colour Config.) + 1 500ml Cleaning Cartridge (2 x Cyan, 2 x Magenta, 2 x Yellow, 2 x Black)	680.00
RLP-TV-VG7C1	Pack of 7 TrueVIS 500ml Ink Cartridges for VG-540/640 (7 Colour Config.) + 1 500ml Cleaning Cartridge (Cyan, Magenta, Yellow, Black, Light Cyan, Light Magenta, Light Black)	605.00
RLP-TV-VG8C1	Pack of 8 TrueVIS 500ml Ink Cartridges for VG-540/640 (8 Colour Config.) + 1 500ml Cleaning Cartridge (Cyan, Magenta, Yellow, Black, Light Cyan, Light Magenta, Light Black, White)	680.00

Automatic Roll-Up Systems (Automatically winds up the printed material)

RLP-VC-TU300	Material Handling System for VS-300i	1,250.00
RLP-VC-TU540	Material Handling System for VS-540i	1,450.00

Recommended Materials

See details of these packs on page 47, and our full range of materials on pages 40 - 47

TPM-SP300	Mixed Materials Pack for SG-300 <i>Save £15</i>	334.00
TPM-SP540	Mixed Materials Pack for SG-540, VG-540/640 <i>Save £15</i>	534.00

Accessories

See details of our full range of accessories on pages 48 - 49

**Design & Print
Banners
Canvas Prints**
for your school



What's Included

Stand

Each TrueVIS is supplied with its own stand.

Software

Roland VersaWorks™ Dual (print management software)
N.B. 2D Design V2 outputs to the TrueVIS via VersaWorks™ Dual software. The link is provided by the VersaWorks printer driver (File > Print in 2D Design V2).

Commissioning & Training

The cost of the TrueVIS also includes commissioning and training on the same day.

Warranty

UK Mainland & Ireland: 1 Year On-Site
Elsewhere: 1 Year Return and Collect

Knife Cutting

Materials

Coloured Vinyl

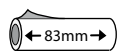
Our high quality coloured vinyl is ideal for using on the CAMM 1, VersaCMM, TrueVIS, VersaSTUDIO, STIKA and CraftROBO - TS machines. It has a gloss finish and a 3 to 5 year external rating. It will stick to almost any clean, dry surface. This self-adhesive vinyl may be used for signs, labels, decals, logos, numbering on clock faces, etc.

Producing a sign is normally a two stage process requiring the use of application film (see page 48). For example, if the sign is text, this is cut out on a knife cutting system, then the vinyl is weeded (all the surplus vinyl is peeled off), leaving just the letters on the backing paper. A piece of application film (like a giant piece of low tack sellotape) is stuck onto the letters. When this is pulled off the paper backing, all the letters come off with it. The application film is then positioned where the sign is to be, and rubbed over firmly with a plastic squeegee. When it is then peeled off, the letters stay put, thus creating the sign.

Coloured vinyl is available in a range of widths to suit the various machines, and in a range of twelve standard colours. N.B. Colours shown are only an indication.

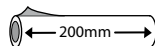


* When ordering, where COL, GS or M-GS is included in the order code, please change this to specify the actual colour required.



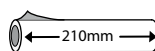
83mm wide vinyl (for Stika SCP-85):

MF-RO50-COL*	Roll of standard colour vinyl 50m x 83mm	14.00
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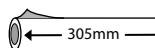
200mm wide vinyl (for Stika SV-8E, SX-8E, STX-7):

TAVN2-P1	Mixed pack of vinyl & application film (Includes 10m x 200mm of each P1 colour and 100m x 150mm app. film)	77.00
TAVN2-P3	Mixed pack of vinyl & application film (Includes 10m x 200mm of each P3 colour and 100m x 150mm app. film)	77.00
TAVN2-P2	Pack of gold and silver vinyl (10m x 200mm of each colour)	21.50
TAVN2-P4	Pack of mirrored gold and silver vinyl (10m x 200mm of each colour)	44.00
TAVN2-50-COL*	50m x 200mm roll of standard colour vinyl	34.00
TAVN2-50-GS*	50m x 200mm roll of gold or silver vinyl	47.00
TAVN2-50-M-GS*	50m x 200mm roll of mirrored gold or silver vinyl	99.00



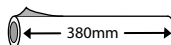
210mm wide vinyl (for CraftROBO - TS):

TAVN21-P1	Mixed pack of vinyl & application film (Includes 10m x 210mm of each P1 colour and 100m x 150mm app. film)	83.00
TAVN21-P3	Mixed pack of vinyl & application film (Includes 10m x 210mm of each P3 colour and 100m x 150mm app. film)	84.00
TAVN21-P2	Pack of gold and silver vinyl (10m x 210mm of each P2 colour)	22.00
TAVN21-P4	Pack of mirrored gold and silver vinyl (10m x 210mm of each P4 colour)	44.00
TAVN21-50-COL*	50m x 210mm roll of standard colour vinyl	41.00
TAVN21-50-GS*	50m x 210mm roll of gold or silver vinyl	49.00
TAVN21-50-M-GS*	50m x 210mm roll of mirrored gold or silver vinyl	99.00



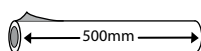
305mm wide vinyl (for CAMM 1 CX-12/E, Stika SV-12E, SV-15E, SX-12E, SX-15E, STX-8):

TAVN3-P1	Mixed pack of vinyl & application film (Includes 10m x 305mm of each P1 colour and 100m x 150mm app. film)	98.00
TAVN3-P3	Mixed pack of vinyl & application film (Includes 10m x 305mm of each P3 colour and 100m x 150mm app. film)	98.00
TAVN3-P2	Pack of gold and silver vinyl (10m x 305mm of each P2 colour)	29.50
TAVN3-P4	Pack of mirrored gold and silver vinyl (10m x 305mm of each P4 colour)	69.00
TAVN3-25-COL*	25m x 305mm roll of standard colour vinyl	26.00
TAVN3-25-GS*	25m x 305mm roll of gold or silver vinyl	34.00
TAVN3-25-M-GS*	25m x 305mm roll of mirrored gold or silver vinyl	84.00
TAVN3-50-COL*	50m x 305mm roll of standard colour vinyl	52.00
TAVN3-50-GS*	50m x 305mm roll of gold or silver vinyl	67.00
TAVN3-50-M-GS*	50m x 305mm roll of mirrored gold or silver vinyl	168.00



380mm wide vinyl (for Stika SV-15E, SX-15E, CraftROBO-TS Pro II):

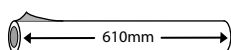
TAVN4-P1	Mixed pack of vinyl & application film (Includes 10m x 380mm of each P1 colour and 100m x 150mm app. film)	115.00
TAVN4-P3	Mixed pack of vinyl & application film (Includes 10m x 380mm of each P3 colour and 100m x 150mm app. film)	115.00
TAVN4-P2	Pack of gold and silver vinyl (10m x 380mm of each P2 colour)	36.00
TAVN4-P4	Pack of mirrored gold and silver vinyl (10m x 380mm of each P4 colour)	69.00
TAVN4-25-COL*	25m x 380mm roll of standard colour vinyl	33.00
TAVN4-25-GS*	25m x 380mm roll of gold or silver vinyl	43.00
TAVN4-25-M-GS*	25m x 380mm roll of mirrored gold or silver vinyl	84.00
TAVN4-50-COL*	50m x 380mm roll of standard colour vinyl	64.00
TAVN4-50-GS*	50m x 380mm roll of gold or silver vinyl	83.00
TAVN4-50-M-GS*	50m x 380mm roll of mirrored gold or silver vinyl	168.00



500mm wide vinyl

(for CAMM 1 GS-24E, GX-24E, CX-24EO, CX-24/E, CX-300/E, VersaCAMM, TrueVIS, VersaSTUDIO, ColorCAMM PC-600):

TAVN5-P1	Mixed pack of vinyl & application film (Includes 10m x 500mm of each P1 colour and 100m x 150mm app. film)	142.00
TAVN5-P3	Mixed pack of vinyl & application film (Includes 10m x 500mm of each P3 colour and 100m x 150mm app. film)	142.00
TAVN5-P2	Pack of gold and silver vinyl (10m x 500mm of each P2 colour)	48.00
TAVN5-P4	Pack of mirrored gold and silver vinyl (10m x 500mm of each P4 colour)	90.00
TAVN5-25-COL*	25m x 500mm roll of standard colour vinyl	43.00
TAVN5-25-GS*	25m x 500mm roll of gold or silver vinyl	58.00
TAVN5-25-M-GS*	25m x 500mm roll of mirrored gold or silver vinyl	110.00
TAVN5-50-COL*	50m x 500mm roll of standard colour vinyl	84.00
TAVN5-50-GS*	50m x 500mm roll of gold or silver vinyl	115.00
TAVN5-50-M-GS*	50m x 500mm roll of mirrored gold or silver vinyl	220.00



610mm wide vinyl

(for CAMM 1 GS-24E, GX-24E, CX-24EO, CX-24/E, CX-300/E, VersaCAMM, TrueVIS, ColorCAMM PC-600):

TAVN6-25-COL*	25m x 610mm roll of standard colour vinyl	52.00
TAVN6-25-GS*	25m x 610mm roll of gold or silver vinyl	67.00
TAVN6-25-M-GS*	25m x 610mm roll of mirrored gold or silver vinyl	128.00
TAVN6-50-COL*	50m x 610mm roll of standard colour vinyl	102.00
TAVN6-50-GS*	50m x 610mm roll of gold or silver vinyl	132.00
TAVN6-50-M-GS*	50m x 610mm roll of mirrored gold or silver vinyl	255.00

Transparent Vinyl

Transparent Vinyl is available in a range of different colours and sizes. See www.techsoft.co.uk/Products/KnifeCuttingMaterials/TransparentVinyl for details and prices.

Frosted ("Etched Glass") Vinyl

You often see etched glass on signs, shop windows, etc. In fact nowadays this effect is almost always achieved with frosted vinyl. This is simply cut and applied like ordinary vinyl.

TAVF2-10	10m x 200mm roll of frosted vinyl	17.00
TAVF21-10	10m x 210mm roll of frosted vinyl	21.00
TAVF3-10	10m x 305mm roll of frosted vinyl	26.00
TAVF4-10	10m x 380mm roll of frosted vinyl	33.00
TAVF5-10	10m x 500mm roll of frosted vinyl	44.00
TAVF6-10	10m x 610mm roll of frosted vinyl	49.00
TAVF7-10	10m x 760mm roll of printable frosted vinyl	61.00
TAF13-10	10m x 1370mm roll of printable frosted vinyl	122.00

Removable Vinyl

A range of "removable" vinyls is available for internal use. See www.techsoft.co.uk/Products/KnifeCuttingMaterials/RemovableVinyl for details and prices.

Glitter & Sequin Vinyl

These special vinyls will add a real sparkle to any project. The glitter finish offers a fine sparkle effect, whilst the sequin finish looks like thousands of small overlapping sequins. The glitter and sequin vinyl is supplied in both A4 and A3 sheets. N.B. Colours shown are only an indication.

Glitter



Silver Gold Red Green Blue Aqua Pink

** When ordering, where COL is included in the order code, please change this to specify the actual colour required.*

TAVG4-P1	Mixed pack of 7 A4 glitter vinyl sheets <i>One of each colour</i>	13.95
TAVG4-10-COL*	Pack of 10 A4 glitter vinyl sheets <i>All same colour</i>	19.00
TAVG3-P1	Mixed pack of 7 A3 glitter vinyl sheets <i>One of each colour</i>	26.00
TAVG3-10-COL*	Pack of 10 A3 glitter vinyl sheets <i>All same colour</i>	37.00

Sequin



Silver Gold Red Blue

TAVS4-P1	Mixed pack of 8 A4 sequin vinyl sheets <i>Two of each colour</i>	11.50
TAVS4-10-COL*	Pack of 10 A4 sequin vinyl sheets <i>All same colour</i>	14.00
TAVS3-P1	Mixed pack of 8 A3 sequin vinyl sheets <i>Two of each colour</i>	21.00
TAVS3-10-COL*	Pack of 10 A3 sequin vinyl sheets <i>All same colour</i>	26.00

Metallic Special Effect Vinyl

Have you ever seen the rainbow effect from oil on water? Well this probably best describes these three iridescent metallic vinyls, which are supplied in both A4 and A3 sheets. N.B. Colours shown are only an indication.



Bright Overall Andromeda Aurora

** When ordering, where COL is included in the order code, please change this to specify the actual colour required.*

TAVR4-P1	Mixed pack of 6 A4 metallic special effect vinyl sheets. <i>Two of each colour.</i>	13.50
TAVR4-10-COL*	Pack of 10 A4 metallic special effect vinyl sheets. <i>All same colour.</i>	23.00
TAVR3-P1	Mixed pack of 6 A3 metallic special effect vinyl sheets. <i>Two of each colour.</i>	25.00
TAVR3-10-COL*	Pack of 10 A3 metallic special effect vinyl sheets. <i>All same colour.</i>	44.00

Printable Vinyl



This special self-adhesive vinyl is ideal for printing and cutting, to produce glossy full colour labels for jars, bottles, sandwich packs, etc., or decals on any number of products (indoor use only). This is done by pre-printing the design onto the material using a colour printer (most inkjet printers and some laser printers), then using a knife cutting system to do the cutting. The printable vinyl is aligned in the machine either automatically (GS-24E, GX-24E, CX-24EO or the CraftROBO - TS), or manually (STIKA, older CAMM 1s - this is made easier by using the TechSoft Alignment Guide supplied in Training Packs). The vinyl is supplied in A4 and A3 sheets.

For Inkjet Printers

Inkjet Printable Vinyl is available in clear (C) and white (W) gloss.

** When ordering, where CW is included in the order code, please change this to specify whether clear (C) or white (W) is required.*

TAVP-K4-10-CW*	10 A4 sheets printable vinyl	9.50
TAVP-K4-50-CW*	50 A4 sheets printable vinyl	42.50
TAVP-K4-100-CW*	100 A4 sheets printable vinyl	75.00
TAVP-K3-10-CW*	10 A3 sheets printable vinyl	21.00
TAVP-K3-50-CW*	50 A3 sheets printable vinyl	93.00
TAVP-K3-100-CW*	100 A3 sheets printable vinyl	166.00

For TMT Laser Printers (see page 112)

Laser Printable Vinyl is available in clear (C), white (W), silver (S) and gold (G) gloss.

** When ordering, where CWSG is included in the order code, please change this to specify whether clear (C), white (W), silver (S) or gold (G) is required.*

TAVP-L4-10-CWSG*	10 A4 sheets printable vinyl	9.50
TAVP-L4-50-CWSG*	50 A4 sheets printable vinyl	42.50
TAVP-L4-100-CWSG*	100 A4 sheets printable vinyl	78.00
TAVP-L3-10-CWSG*	10 A3 sheets printable vinyl	19.00
TAVP-L3-50-CWSG*	50 A3 sheets printable vinyl	85.00
TAVP-L3-100-CWSG*	100 A3 sheets printable vinyl	157.00

For TrueVIS/Eco-Sol Inks Only

Vinyl for TrueVIS/Eco-Sol inks has a polyester coated backing and it therefore does not absorb moisture like standard vinyls. This eliminates potential distortion when the vinyl is heated on the VersaCAMM or TrueVIS, prior to and after printing. The vinyl is available in gloss white or clear.



** When ordering, where CW is included in the order code, please change this to specify whether clear (C) or white (W) gloss is required.*

505mm wide (for VersaSTUDIO BN-20)

TAVU5-25-CW*	25m x 505mm roll of printable vinyl	31.00
TAVU5-50-CW*	50m x 505mm roll of printable vinyl	58.00

760mm wide (for VersaCAMM SP-300i, VS-300i & TrueVIS SG300)

TAVU7-25-CW*	25m x 760mm roll of printable vinyl	47.00
TAVU7-50-CW*	50m x 760mm roll of printable vinyl	89.00

1370mm wide (for VersaCAMM SP-540i, VS-540i/640i & TrueVIS SG-540, VG-540/640)

TAVU13-25-CW*	25m x 1370mm roll of printable vinyl	84.00
TAVU13-50-CW*	50m x 1370mm roll of printable vinyl	160.00

Peelable Printable Vinyl for TrueVIS/Eco-Sol Inks

Peelable vinyl for TrueVIS/Eco-Sol inks can be printed and cut by a VersaSTUDIO, VersaCAMM or TrueVIS and then applied to smooth interior surfaces. The vinyl has a special low tack adhesive which allows it to be peeled off again. Ideal for temporary indoor graphics and signage. This peelable vinyl is available in white gloss, white matt or clear.



** Where GMC is included in the order code, please change this to specify whether white gloss (G), white matt (M) or clear (C) is required.*

456mm wide (for VersaSTUDIO BN-20)

TAV-PV4-5-GMC*	5m x 456mm roll of peelable vinyl	16.95
TAV-PV4-25-GMC*	25m x 456mm roll of peelable vinyl	83.00

685mm wide (for VersaCAMM SP-300i, VS-300i & TrueVIS SG-300)

TAV-PV7-5-GMC*	5m x 685mm roll of peelable vinyl	26.00
TAV-PV7-25-GMC*	25m x 685mm roll of peelable vinyl	127.00

1370mm wide (for VersaCAMM SP-540i, VS-540i/640i & TrueVIS SG-540, VG-540/640)

TAV-PV13-5-GMC*	5m x 1370mm roll of peelable vinyl	49.00
TAV-PV13-25-GMC*	25m x 1370mm roll of peelable vinyl	241.00

Printable Paper / Poster Paper

Label Paper For Most Inkjet/Laser Printers

This special low cost self-adhesive paper is ideal for printing and cutting, to produce full colour labels for jars, bottles, sandwich packs, etc., or decals on any number of products. Label paper can be printed using most inkjet or laser printers, and then cut with nearly any CAMM 1, STIKA or CraftROBO.



TASP-100	100 A4 sheets self-adhesive paper	10.00
TASP-500	500 A4 sheets self-adhesive paper	27.00
TAPR5-50	50m x 500mm roll of self-adhesive paper	29.00

Poster Paper for TrueVIS/Eco-Sol Inks Only

Poster paper for TrueVIS/Eco-Sol inks produces good print quality, making it ideal for creating large scale posters.

505mm wide (for VersaSTUDIO BN-20)

TAV-DPB5-15	15m x 505mm, 140gsm, satin finish paper	14.50
TAV-DPB5-61	61m x 505mm, 140gsm, satin finish paper	55.00

760mm wide (for VersaCAMM SP-300i, VS-300i & TrueVIS SG-300)

TAV-DPB7-15	15m x 760mm, 140gsm, satin finish paper	19.50
TAV-DPB7-61	61m x 760mm, 140gsm, satin finish paper	74.00

1270mm wide (for VersaCAMM SP-540i, VS-540i/640i & TrueVIS SG-540, VG-540/640)

TAV-DPB13-15	15m x 1270mm, 140gsm, satin finish paper	29.50
TAV-DPB13-61	61m x 1270mm, 140gsm, satin finish paper	113.00

Card

We are often asked about suitable card for cutting with a CAMM 1, VersaSTUDIO, VersaCAMM, TrueVIS or CraftROBO - TS. In fact most "cards", as opposed to "paper" or "cardboard" will cut quite well. However, to ensure peace of mind, we have tested a range of cards and are now stocking what we consider to be the best.



For CAMM 1 & CraftROBO-TS

This card cuts cleanly, folds crisply, and has a smooth silk finish which takes plotter pens well.

CA053	200 sheets 275gsm, A4 card	21.00
CA054	100 sheets 275gsm, A3 card	21.00
CA050	100 sheets 280gsm, A2 card	65.00

N.B. With some inkjet printers it has been found that the card below (For ColorCAMM) give a better quality print, but it may require an extra cutting pass.

For ColorCAMM

Card for the ColorCAMM has a fine semi-matt finish and works well with the ColorCAMM wax cartridges.

CA048	200 sheets 300gsm, A4 card	40.00
CA051	100 sheets 300gsm, A3 card	40.00
CA052	100 sheets 300gsm, A2 card	75.00

For TrueVIS/Eco-Sol Inks Only, ie. TrueVIS, VersaCAMM, BN-20

This high quality card has a special coating that accepts solvent inks from the TrueVIS, VersaCAMM and VersaSTUDIO range. Print quality is superb and the card cuts and scores cleanly to allow print-and-cut packaging projects from a single machine.

N.B. The roll will need to be cut down to sheets in order to fit the VersaSTUDIO BN-20.

TAV-CR610-30	30.5m x 610mm roll card for VersaCAMM	85.00
TAV-CR762-30	30.5m x 762mm roll card for VersaCAMM	99.00
TAV-CR1372-30	30.5m x 1372mm roll card for VersaCAMM	165.00

Plotter Paper / Pens

Plotter Paper

CA029	250 sheets 115gsm A3 plotter paper	36.00
CA041	250 sheets 115gsm A4 plotter paper	19.00
TA-PLOT-50	Roll of 90gsm plotting paper 50m x 610mm	8.95
TA-TRAC6-50	Roll of 90gsm tracing paper 50m x 610mm	36.00

Pens for Roland Plotters, CAMM 1, STIKA

For plotter paper: 0.3mm water based nylon tip pens

F51252	5 pens, black (water based)	22.50
G37939	4 pens (black, red, blue, green)	23.50

For direct plotting onto PCBs (as an etch resist), and OHPs: 0.3mm oil based fibre tip pens

F53252	5 pens, black	29.00
G37763	4 pens (black, red, blue, green)	23.50
G37773	4 pens (brown, orange, black, violet)	23.50

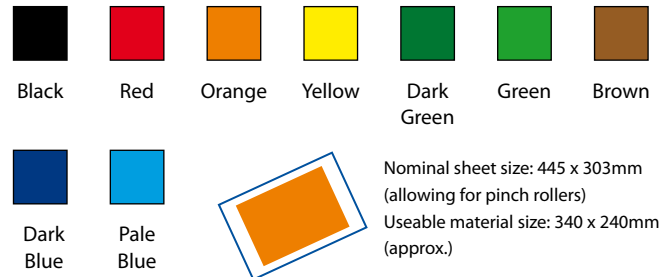
Ceramic Transfers

Designs have been put on ceramics by 'wet transfer' for many years. Now, with TechSoft Ceramicon transfer material you can create designs using the CAMM 1, VersaSTUDIO, VersaCAMM, TrueVIS, STIKA or CraftROBO - TS. Simply cut as if cutting vinyl, then place the sheet in a bowl of water. After about 20 seconds the image may be floated off the paper and onto the article to be glazed. Leave to dry then fire in a kiln. The process works with ceramic tiles or ready made 'white ware'- including mugs, plates, etc. Once fired the transfer becomes part of the object and is dishwasher proof. It can also be used to enamel jewellery.



Ceramicon is available in sheets, in a range of colours.

N.B. Colours shown are only an indication.



Nominal sheet size: 445 x 303mm (allowing for pinch rollers)
Useable material size: 340 x 240mm (approx.)

** When ordering, where COL is included in the order code, please change this to specify the actual colour required.*

TA-CER-MIX	Mixed pack of 10 Ceramicon sheets. Two black, one of each other colour.	52.00
TA-CER-COL*	Pack of 10 Ceramicon sheets. All same standard colour.	52.00

Water Release Transfer Paper

Water release transfer paper is ideal for producing decals on non-porous, smooth surfaces, such as ceramics, glass, candles, and plastic. The image is printed onto the transfer paper using a TMT laser printer (see page 112), and then cut using a knife cutting system. It can be used with nearly any CAMM 1, STIKA or Craft ROBO. Once printed, the water release transfer paper is aligned in the machine either automatically (GS-24E, GX-24E, CX-24EO or the Craft ROBO-TS), or manually (this is made easier by using the TechSoft Alignment Guide supplied in Training Packs). Once cut the paper is placed in water and the transfer is removed from its backing. Position the transfer onto the substrate removing any bubbles and wrinkles with a decal kidney (see below). Allow the transfer to dry for a minimum of 3 hours. If applied onto ceramic or glass the transfer can be cured by placing the object into an oven for 3 minutes at 180°C.



Water release transfer paper is available in clear (C) and white (W) A4 sheets.

** When ordering, where CW is included in the order code, please change this to specify whether clear or white is required.*

TAWRP-10-CW*	10 A4 sheets water release transfer paper	18.00
TAWRP-50-CW*	50 A4 sheets water release transfer paper	79.00
TAWR-DK	Decal Kidney (rubber squeegee) (For applying Water Release Transfers)	5.25

Knife Cutting

Materials

Cutronic Foil for PCBs

Cutronic foil is a real copper foil with a self-adhesive backing which can be cut by the CAMM 1 or STIKA. This has got to be the quickest, cleanest way of making simple PCBs. Designs created in 2D PCB can be cut, and applied to any clean surface. It's as easy as vinyl sign making, you even use the same application film to ensure accurate alignment.



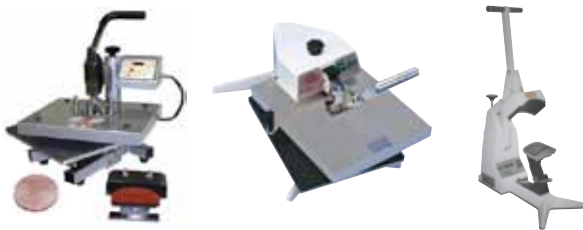
Any substrate capable of surviving soldering heat may be used including card and plastics. With Cutronic Foil you do not have to make and house a circuit board, the circuit can be an integral part of the artifact.

Cutronic Foil is also available in rolls 5mm wide, ideal for producing simple "hand built" circuits.

TA-FOIL-R200	55m x 200mm roll Cutronic Foil	185.00
TA-FOIL-R5	55m x 5mm roll Cutronic Foil	5.95
TA-FOIL-SHEET	10 sheet pack, 300 x 200mm Cutronic Foil	12.00

Heat Presses

See page 116 for full details



We supply a range of heat presses which can be used for applying heat applied materials (vinyls, etc) as well as for image transfer (see pages 112-116). Some heat applied vinyl and flock can be transferred with a domestic iron, but one of these presses makes it a quick production process. See page 116 for full details.

SLM-SWINGPR3830	Multifunctional Swing Press 380 x 300mm platen size	645.00
SLM-SPCAP1	Cap element kit for SLM-SWINGPR3830	60.00
SLM-SPPLATE1	Plate element kit for SLM-SWINGPR3830	60.00
SLM-SWINGPR3333	Swing Press 330 x 330mm platen size	599.00
SLM-SWINGPRESS	Swing Press 380 x 500mm platen size	1,090.00
SLM-CAPPRESS	Cap Press	735.00

Baseball Caps for Heat Applied Vinyl

Ideal for applying knife cut designs in iron-on coloured vinyl, iron-on flock or iron-on printable vinyl, with the cap press (see page 116).



Available in black, green, navy blue, red, yellow, or royal blue

* Please specify colour required

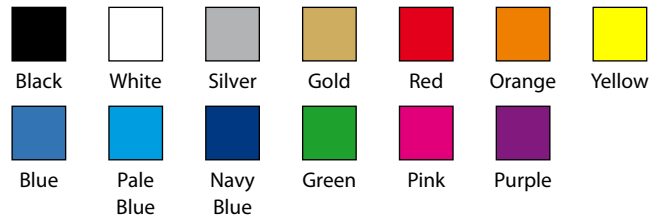
LIT-CAP10-COL*	10 Baseball Caps. All same colour. (Available in black, green, navy blue, red, yellow or royal blue)	20.00
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Heat Applied Vinyl

Heat applied coloured vinyl is simple to use and gives superb results on garments. Simply mirror the image, then cut on the CAMM 1, VersaSTUDIO, VersaCamm, TrueVIS, STIKA or CraftROBO - TS as normal. Weed off the excess, lay the material onto the fabric (vinyl down) and fix the image using an iron or, even easier, a heat press. After a few seconds cooling, the paper can be peeled off to reveal a superb professional quality finish. When producing batches of work, a heat press is particularly recommended.



Heat applied vinyl is available in sheets, in a range of colours.



* When ordering, where COL is included in the order code, please change this to specify the actual colour required. (N.B. Colours shown are only an indication.)

355 x 225mm size

TAVI-P2	Mixed pack of 13 heat applied vinyl sheets. One of each colour	31.00
TAVI-10-COL*	10 heat applied vinyl sheets. All same colour	24.50
TAVI-25-COL*	25 heat applied vinyl sheets. All same colour	57.00

450 x 355mm size

TAVJ-P2	Mixed pack of 13 heat applied vinyl sheets. One of each colour	61.00
TAVJ-10-COL*	10 heat applied vinyl sheets. All same colour	48.00
TAVJ-25-COL*	25 heat applied vinyl sheets. All same colour	114.00

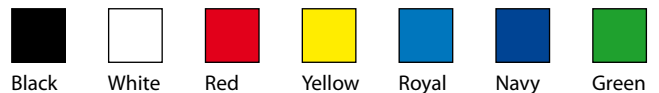
Heat Applied Flock

Do you enjoy using heat applied vinyl but wish it had a little more texture? TechSoft stock a range of flocked vinyl, which gives an extra dimension to your designs. Heat applied flock is available in sheets, in a range of colours.

N.B. Colours shown are only an indication.



Standard Mixed Pack P1



Printed Mixed Pack P2



* When ordering, where COL or PRT is included in the order code, please change this to specify the actual colour or print required.

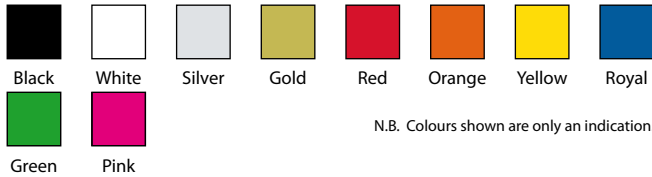
TAVIF-P1	Mixed pack of 7 standard heat applied flock sheets (Nominal size: 500 x 500mm)	77.00
TAVIF5-5-COL*	5m x 500mm standard heat applied flock	73.00
TAVIF-P2	Mixed pk of 4 printed heat applied flock sheets (Nominal size: 500 x 500mm)	38.00
TAVIF5-5-PRT*	5m x 500mm printed heat applied flock (Available in Snake or Lizard only)	81.00

Heat Applied Reflective Vinyl

Heat applied reflective vinyl is a brand new material that knife cuts easily for heat pressing onto garments and accessories. It has a striking effect in natural daylight and astonishing impact when caught by lights.

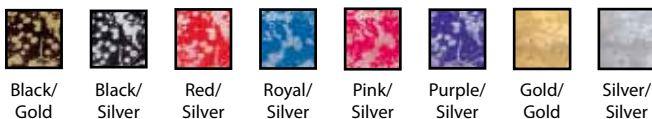
It is available in sheets 480 x 320mm, in a range of colours and effects.

***When ordering, where COL is included in the order code, please change this to specify the actual colour(s) required.**

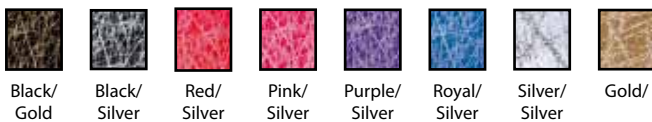


N.B. Colours shown are only an indication.

TAVRPF-COL*	Single colour reflective heat applied vinyl sheet 480 x 320mm.	6.30
TAVRPF5-5-SL	5m x 500mm Silver reflective heat applied vinyl (ideal for safety garments)	64.00



TAVRPFM-COL*	Mottled effect reflective heat applied vinyl sheet 480 x 320mm.	7.90
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TAVRPF5-COL*	Scratched effect reflective heat applied vinyl sheet 480 x 320mm.	7.90
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Heat Applied Gemstones

Use 2D Design and a CAMM 1 or miller/router to design and cut out a stencil or template to position the gemstones. Brush the gemstones into the stencil using a felt block before transferring the gemstone design onto your fabric using heat resistant application film. Fix the gemstones by heating with a heat press.



TXCR-H12-AB	Pack of 100 Preciosa Hotfix Flatback Crystals. Aurora Borealis, Size ss12 (3.2mm)	3.40
TXCR-H20-AB	Pack of 100 Preciosa Hotfix Flatback Crystals. Aurora Borealis, Size ss20 (5mm)	5.95
TXCR-H34-AB	Pack of 36 Preciosa Hotfix Flatback Crystals. Aurora Borealis, Size ss34 (7mm)	6.45
TA-TWEEZERS	Set of 4 weeding tweezers	16.50
TAVA-SQ4	100mm felt block squeegee	2.85
TAVN-APH250	25mm x 250mm roll heat resistant polyester application film	31.00

Heat Applied Printable Vinyl

Heat applied vinyl is a popular material for CAD/CAM activities in both Textiles and Graphic Products lessons. This printable, heat applied vinyl material takes the process further. Most standard inkjet and some laser printers will print the image, then the shape of the graphic can be cut using any of our CNC knife-cutters. This print-and-cut process is an excellent technique for teaching CAD/CAM. Print alignment is automatic with GS-24E, GX-24E, CX-24EO or Craft ROBO machines or can be achieved manually with the Stika using the TechSoft Alignment Guide supplied in Training Packs.



For Inkjet Printers (Iron)

TAVIP-K4-10	10 A4 sheets heat applied printable vinyl	19.95
TAVIP-K4-25	25 A4 sheets heat applied printable vinyl	47.00
TAVIP-K4-50	50 A4 sheets heat applied printable vinyl	93.00
TAVIP-K3-10	10 A3 sheets heat applied printable vinyl	37.00
TAVIP-K3-25	25 A3 sheets heat applied printable vinyl	89.00
TAVIP-K3-50	50 A3 sheets heat applied printable vinyl	176.00

For TMT Laser Printers (Not Iron) (see page 112)

TAVIP-L4-10	10 A4 sheets heat applied printable vinyl	17.00
TAVIP-L4-25	25 A4 sheets heat applied printable vinyl	40.00
TAVIP-L4-50	50 A4 sheets heat applied printable vinyl	65.00
TAVIP-L3-10	10 A3 sheets heat applied printable vinyl	34.00
TAVIP-L3-25	25 A3 sheets heat applied printable vinyl	80.00
TAVIP-L3-50	50 A3 sheets heat applied printable vinyl	136.00

For TrueVIS/Eco-Sol Inks Only

This material gives users of VersaSTUDIO, VersaCAMM and TrueVIS machines a one-step process for bespoke printed graphics for garments. TrueVIS/Eco-Sol inks provide sharp colourful images and automatic alignment ensures a perfect fit ready for heat application.



505mm wide (for VersaSTUDIO BN-20)

TAVIP5-5-W	5m x 505mm white heat applied printable vinyl	54.00
TAVIP5-5-C	5m x 505mm clear heat applied printable vinyl	47.00

760mm wide (for VersaCAMM SP-300i, VS-300i & TrueVIS SG-300)

TAVIP7-5-W	5m x 760mm white heat applied printable vinyl	79.00
TAVIP7-5-C	5m x 760mm clear heat applied printable vinyl	69.00

1370mm wide (for VersaCAMM SP-540i, VS-540i/640i & TrueVIS SG-540, VG-540/640)

TAVIP13-5-W	5m x 1370mm white heat applied printable vinyl	151.00
TAVIP13-5-C	5m x 1370mm clear heat applied printable vinyl	133.00

Heat Applied Printable Flock (TrueVIS/Eco-Sol ink)

This material is similar to our standard white flock but can be printed by the VersaSTUDIO, VersaCAMM or TrueVIS before cutting around the graphics. The printed and cut flock is then heat applied to a textile garment or product.

TAV-PF5-5	5m x 500mm roll of printable white flock	45.00
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Canvas for TrueVIS/Eco-Sol Inks

This canvas has a special coating which allows the VersaSTUDIO, VersaCAMP or TrueVIS to print directly onto the surface. You can use this material to produce digital prints of student's art work, school photographs, etc. For a finished product the canvas can then be stretched over a frame.



505mm wide (for VersaSTUDIO BN-20)

TAV-C5-5	5m x 505mm, 340gsm, art canvas	22.00
TAV-C5-10	10m x 505mm, 340gsm, art canvas	43.00
TAV-C5-25	25m x 505mm, 340gsm, art canvas	122.00

760mm wide (for VersaCAMP SP-300i, VS-300i & TrueVIS SG-300)

TAV-C7-5	5m x 760mm, 340gsm, art canvas	32.00
TAV-C7-10	10m x 760mm, 340gsm, art canvas	64.00
TAV-C7-30	30m x 760mm, 340gsm, art canvas	183.00

1370mm wide (for VersaCAMP SP-540i, VS-540i/640i & TrueVIS SG-540, VG-540/640)

TAV-C13-5	5m x 1370mm, 340gsm, art canvas	61.00
TAV-C13-10	10m x 1370mm, 340gsm, art canvas	122.00
TAV-C13-30	30m x 1370mm, 340gsm, art canvas	348.00

Card Frame Kits for Canvas

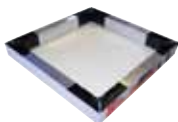
The simple and economical way to achieve professional standards of presentation. Each kit contains a self-adhesive net to which the canvas print is applied. As the net is folded, the canvas print is stretched and a neat box frame is created.



TAV-CF2-A4-10	10 Card Frames for Canvas. Sheet Size A4. Frame Face Size: 131 x 218mm.	36.00
TAV-CF2-A3-10	10 Card Frames for Canvas. Sheet Size A3+ (329 x 412mm). Frame Face Size: 249 x 332mm.	42.00
TAV-CF2-1216-10	10 Card Frames for Canvas. Sheet Size 427 x 528mm. Frame Face Size: 305 x 406mm.	45.00
TAV-CF2-1620-10	10 Card Frames for Canvas. Sheet Size 528 x 628mm. Frame Face Size: 406 x 508mm.	67.00

Aluminium Frame Kits for Canvas

This unique aluminium frame system uses cleverly designed bars which simply stick to the back of your printed canvas and fold together to stretch the canvas and create the frame. Produce professional results without the need for professional know-how.



TAV-CF1-1612	16" x 12" Canvas Frame Kit	17.50
TAV-CF1-2420	24" x 20" Canvas Frame Kit	23.50
TAV-CF1-3024	30" x 24" Canvas Frame Kit	27.00

Roll-Up Stand & Materials for TrueVIS/Eco-Sol Inks

These roll-up stands hold a printed sheet of roll-up material to make an imposing, yet portable, graphic banner ideal for school presentations, etc.

The stands are supplied with a carry bag and one 'quick change' mounting kit to allow quick change of graphics. Extension poles are available to give extra height if required.

N.B. Roll-up material must be ordered separately for VersaSTUDIO BN-20.



250mm wide (for VersaSTUDIO-BN-20)

TAV-BS-M25	250mm wide mini roller blind stand (480mm high)	65.00
TAV-BSP-QCK25	"Quick-change" Mounting Kit 250mm for TAV-BSP-M25	6.60
TAV-BS3-10	10m x 300mm matt roll-up material	25.00
TAV-BS3S-10	10m x 300mm satin finish roll-up material	18.00

600mm wide (for VersaCAMP SP-300i, VS300i & TrueVIS SG-300)

TAV-BS-P60	600mm wide roller blind stand (1.86m high)	140.00
TAV-BSP-QCK60	"Quick-change" Mounting Kit 600mm for TAV-BS-P60	12.50
TAV-BS-EP	38cm Extension Pole for TAV-BS-P60	6.95
TAV-BS7-10	10m x 760mm matt roll-up material	73.00
TAV-BS7S-10	10m x 760mm satin finish roll-up material	52.00

880mm wide (for VersaCAMP SP-540i, VS-540i/640i & TrueVIS SG-540, VG-540/640)

TAV-BS-P88	880mm wide roller blind stand (2.12m high)	130.00
TAV-BSP-QCK88	"Quick-change" Mounting Kit for TAV-BS-P88	16.50
TAV-BS-EP	38cm Extension Pole for TAV-BS-P88	6.95
TAV-BS-H88	Hard Case on Wheels 880mm (for TAV-BS-P88)	65.00
TAV-BS9-10	10m x 914mm matt roll-up material	73.00
TAV-BS9S-10	10m x 914mm satin finish roll-up material	52.00
TAV-BS10S-10	10m x 1070mm satin finish roll-up material	61.00

Wallpaper for TrueVIS/Eco-Sol Inks

Ideal for interior design projects and eye-catching décor, this high quality paper accepts TrueVIS/Eco-Sol ink for faithful colour reproduction. Print durability and wet-strength is good meaning it can be pasted and hung in the same way as 'regular' wallpaper. The wallpaper is non-adhesive and 350gsm weight.



650mm wide (for VersaCAMP SP-300i, VS-300 & TrueVIS SG-300)

TAV-W7-12-M	12m x 650mm smooth wallpaper	40.00
TAV-W7-25-M	25m x 650mm smooth wallpaper	80.00

1300mm wide (for VersaCAMP SP-540i, VS-540 & TrueVIS SG-540, VG-540)

TAV-W13-12-M	12m x 1300mm smooth wallpaper	81.00
TAV-W13-25-M	25m x 1300mm smooth wallpaper	161.00

Banner Material

Banner material can be printed on TrueVIS machines to produce professional quality banners, for use around the school. Printed banners can be used to advertise school and sporting events, etc.



505mm wide (for VersaSTUDIO BN-20)

TAV-B5-10	10m x 505mm banner (440gsm)	12.95
TAV-B5-30	30m x 505mm banner (440gsm)	34.00

760mm wide (for VersaCamm SP-300i, VS-300i & TrueVIS SG-300)

TAV-B7-10	10m x 760mm banner (440gsm)	15.00
TAV-B7-30	30m x 760mm banner (440gsm)	41.00

1370mm wide (for VersaCamm SP-540i, VS-540i/640i & TrueVIS SG-540, VG-540/640)

TAV-B13-10	10m x 1370mm banner (440gsm)	27.00
TAV-B13-30	30m x 1370mm banner (440gsm)	74.00

Banner Accessories

Everything you need to ensure that banners produced on your VersaSTUDIO BN-20, VersaCamm or TrueVIS are finished as smartly as they are printed and don't blow away in the wind. Banner tape is important to finish and reinforce edges – particularly in exposed locations.



TAV-EP1	Hand Operated Eyelet Press c/w set of fitting dies	135.00
TAV-EY100	100 Brass Eyelets (11mm internal hole)	7.35
TAV-EY1000	1000 Brass Eyelets (11mm internal hole)	65.00
TAV-BT1	20mm x 50m Roll of Double Sided Banner Hemming Tape	9.99

Printable Magnetic and Ferrous Material

For TrueVIS, VersaCamm and VersaSTUDIO users, these new materials accept TrueVIS/Eco-Sol inks for great print quality and high durability.

Printable Magnetic Vinyl is ideal for removable signage, eg., fridge magnets or temporary vehicle graphics. Self-adhesive Ferrous Film can be applied to any surface to make it receptive to magnetic vinyl.

A similar (but opposite) effect could use Self-Adhesive Magnetic Film to 'magnetise' a wall or display board. Posters, banners and notices are then printed onto Printable Ferrous Paper and attached or re-arranged at will. No wrinkles and no pins or tape needed! All these materials are tough and durable so any cutting needs to be done manually.

Printable Magnetic Material on Self-Adhesive Ferrous Material

TAVPMF10-5	5m x 1000mm printable white faced magnetic film. <i>Can be used in conjunction with TAVFF10-5.</i>	63.00
TAVFF10-5	5m x 1000mm self-adhesive ferrous film. <i>Can be used in conjunction with TAVPMF10-5.</i>	126.00

Printable Ferrous Material on Self-Adhesive Magnetic Material

TAVPFF12-5	5m x 1260mm printable white faced ferrous paper. <i>Can be used in conjunction with TAVMF12-5.</i>	111.00
TAVMF12-5	5m x 1250mm self-adhesive magnetic film. <i>Can be used in conjunction with TAVPFF12-5.</i>	115.00

Materials Packs

These packs have been created by popular demand to take the hassle out of ordering, and to give a modest cost saving overall. Each pack contains a generous selection of materials particularly suited to, and in exactly the right size for the machine listed. Ideal as a basic stock, for back-up and for developing projects using different materials. We have included our special High/Low tack tape for making backing sheets, where card cutting is appropriate.

For Stika

TPM-SV8	Mixed Materials Pack for SV-8E (Save £5) Contains coloured vinyl (TAVN2-P1, TAVN2-P2); iron-on vinyl (TAVI-P2); self-adhesive paper (TASP-100); tweezers (TA-TWEEZERS)	149.00
TPM-SV12	Mixed Materials Pack for SV-12E (Save £7) Contains coloured vinyl (TAVN3-P1, TAVN3-P2); iron-on vinyl (TAVI-P2); self-adhesive paper (TASP-100); tweezers (TA-TWEEZERS)	176.00
TPM-SV15	Mixed Materials Pack for SV-15E (Save £7) Contains coloured vinyl (TAVN4-P1, TAVN4-P2); iron-on vinyl (TAVI-P2); self-adhesive paper (TASP-100); tweezers (TA-TWEEZERS)	199.00

For CMM 1

TPM-GX24	Mixed Materials Pack for GS-24E/GX-24E (Save £10) Contains coloured vinyl (TAVN5-P1, TAVN5-P2); heat applied vinyl (TAVJ-P2); card (CA049); tweezers (TA-TWEEZERS); High/Low tack tape (TA-TAPE-KC)	285.00
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For VersaSTUDIO

TPM-BN20	Mixed Materials Pack for BN-20 (Save £10) Contains white vinyl (TAVU5-25-W); clear vinyl (TAVU5-25-C); peelable white vinyl (TAV-PV4-5-G); heat applied clear printable vinyl (TAVIP5-5-C); poster paper (TAV-DPB5-15); art canvas (TAV-C5-5); card (TAV-C3020-50); high/low take tape (TA-TAPE-KC); tweezers (TA-TWEEZERS); float-on vinyl application liquid (TAVA-VAL)	286.00
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For TrueVIS & VersaCamm

TPM-SP300	Mixed Materials Pack for VersaCamm SP-300i, VS-300i & TrueVIS SG-300 (Save £15) Contains white vinyl (TAVU7-25-W); clear vinyl (TAVU7-25-C); peelable white vinyl (TAV-PV7-5-G); clear heat applied printable vinyl (TAVIP7-5-C); poster paper (TAV-DPB7-15); art canvas (TAV-C7-5); card (TAV-C3020-50); high/low take tape (TA-TAPE-KC); tweezers (TA-TWEEZERS); float-on vinyl application liquid (TAVA-VAL)	334.00
TPM-SP540	Mixed Materials Pack for VersaCamm SP-540i, VS-540i/640i & TrueVIS SG-540, VG-540/640 (Save £15) Contains white vinyl (TAVU13-25-W); clear vinyl (TAVU13-25-C); peelable white vinyl (TAV-PV13-5-G); clear heat applied printable vinyl (TAVIP13-5-C); poster paper (TAV-DPB13-15); art canvas (TAV-C13-5); card (TAV-C3020-50); high/low take tape (TA-TAPE-KC); tweezers (TA-TWEEZERS); float-on vinyl application liquid (TAVA-VAL)	534.00

For CraftROBO & CraftROBO Pro

TPM-CR	Mixed Materials Pack for Craft ROBO (Save £7) Contains coloured vinyl (TAVN21-P1, TAVN21-P2); heat applied vinyl (TAVI-P2); card (CA046); tweezers (TA-TWEEZERS); High/Low tack tape (TA-TAPE-KC)	180.00
TPM-CRP	Mixed Materials Pack for Craft ROBO (Save £10) Contains coloured vinyl (TAVN4-P1, TAVN4-P2); heat applied vinyl (TAVJ-P2); card (CA049); tweezers (TA-TWEEZERS); High/Low tack tape (TA-TAPE-KC)	246.00

Knife Cutting

Accessories and Consumables

Knife Cutting High/Low Tack Tape

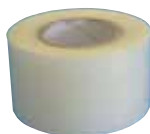
TechSoft's High/Low tack double sided tape can be applied to a piece of card to create a low tack backing sheet. This can be quickly and effortlessly attached prior to cutting and removed after the card product has been cut/scored/creased. The low tack backing sheet can then be reused many times and you can make several backing sheets to increase the throughput on the knife cutting machine.



TA-TAPE-KC	High/Low tack tape 12mm x 50m	6.65
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Application Film

Application film is used to keep separate pieces of a design, or characters in a piece of text, correctly aligned. Once the design is cut and the unwanted areas 'weeded' out, the film, which has a low tack adhesive layer, is placed over the design which can then be lifted off in one piece. The complete design is then rubbed down wherever it is required and the application film peeled off.



MF-RO50-APP	100m x 83mm roll application film	14.00
TAVN-AP150	100m x 150mm roll application film	23.00
TAVN-AP450	100m x 450mm roll application film	69.00

Heat Resistant Application Film

Ideal for transferring printable iron-on vinyl and gemstone designs.

TAVN-APH500	25m x 500mm roll heat resistant application film	61.00
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Weeding Tweezers

Needle-point tweezers, the stress-free way to lift edges and weed out fine details



TA-TWEEZERS	Set of 4 weeding tweezers	16.50
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Safety Rulers

Vinyl is best cut to size with a sharp craft knife. These rulers have a non-slip base and a wedge-shaped 'barrier' profile to keep fingers well away from the cutting edge.



TAVA-RL50	500mm Yellow Safety Ruler	28.50
TAVA-RL100	1000mm Yellow Safety Ruler	45.00
TAVA-RL150	1500mm Yellow Safety Ruler	59.95

Vinyl Clip

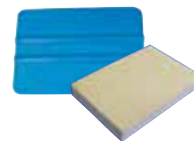
A simple device to avoid part-used rolls unravelling and wasting material. Doesn't crease or damage the material which would happen with elastic bands or bits of tape.



TAVA-CLP	Vinyl Roll Clip	1.40
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Applicators

Application tape and vinyls need to be applied with even pressure. These applicators will ensure good adhesion without wrinkles and bubbles. Felt-edged applicators are essential to prevent scratching when applying printed vinyls, for example from TrueVIS machines.



TAVA-SQ5	Blue plastic squeegee	0.60
TAVA-SQ4	100mm felt block squeegee	2.85
TAVA-SQ3	95mm felt edged plastic squeegee	3.90
TAVA-SQ1	160mm felt edged plywood squeegee	8.50
TAVA-SQ2	270mm felt edged plywood squeegee	11.50

Cleaning Kits for BN-20, VersaCMM & TrueVIS

RLP-VC-CLEANKIT	Cleaning Kit - 1 bottle of solution and 10 swabs	42.95
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Application Liquid

Vinyl tends to 'grab' the substrate which makes positioning difficult and it can be tricky to avoid bubbles. Spray this liquid on first and you will be able to float the vinyl into position - then use an applicator to fix it and remove air bubbles. Takes the drama out of applying larger designs (in particular) and evaporates without residue.



TAVA-VAL	Float-On Vinyl Application Liquid (1 litre container with spray trigger)	11.60
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Anti-Static Cleaner

The perfect preparation for substrates prior to applying vinyl. Ensures perfect adhesion by removing particles and traces of grease or wax. The anti-static formulation prevents dust being attracted to the prepared surface.



TAVA-ASC	Anti-Static Cleaner (500ml container with spray trigger)	12.95
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Universal Adhesive Remover

Removes adhesive residue when vinyl is removed from a surface. Does not damage the surface and works within 2 minutes. A low-hazard liquid so friendly to use.



TAVA-AR	Right-Off Universal Adhesive Remover (1 litre container with spray trigger)	13.95
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Cutters and Holders

For Roland Stika, CAMM 1, VersaSTUDIO, VersaCAMM and TrueVIS

Standard Cutter

Replacement general-purpose cutters for all Roland knife-cutting machines. These solid carbide inserts slip into the blade holder to restore 'as new' cutting performance.

TA-CMC	Standard Carbide Cutter x 1	14.95
TA-CMC-5	Standard Carbide Cutter x 5	59.95

Extra Sharp Cutter

This extra sharp fine pointed cutter is useful for intricate detail on thicker materials. It requires a much lower force than the standard cutter. (Not suitable for scoring.)

TA-CMCH	Extra Sharp Cutter for thick materials only.	16.95
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Cutter Holder

Cutter holders do not usually wear but they can get lost!

XD-CH3	Replacement Cutter Holder (exc. cutter)	52.50
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Creasing Tools

These creasing tools are ideal for making the folds in nets.

For Roland CAMM1, VersaSTUDIO, VersaCAMM and TrueVIS

TA-FOLDTOOL	Creasing Tool for CAMM 1	19.95
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Bed Strips

After a lot of use, the plastic strip below where the blade runs can become scored giving inconsistent results. These replacement bed strips are simple to fit and can transform the performance of a well-used machine.

RPL-BED-SV8	Bed Strip for SV-8/SX-8	8.95
RPL-BED-SV12	Bed Strip for SV-12/SX-12	9.95
RPL-BED-SV15	Bed Strip for SV-15/SX-15	10.55
RPL-BED-GS24	Bed Strip for GS-24	13.95
RPL-BED-GX24	Bed Strip for GX-24	13.95
RPL-BED-GX300	Bed Strip for GX-300	15.95
RPL-BED-GX500	Bed Strip for GX-500	17.95
RPL-BED-BN20	Bed Strip for BN-20	9.95
RPL-BED-SP300	Bed Strip for SP-300(i)	14.95
RPL-BED-SP540	Bed Strip for SP-540(i)/CX-500/CM-500	14.95
RPL-BED-VS300	Bed Strip for VP-300/VS-300(i)	12.95
RPL-BED-VS540	Bed Strip for VP-540/VS-540(i)	16.95
RPL-BED-STX7	Bed Strip for STX-7	6.95
RPL-BED-STX8	Bed Strip for STX-8	6.95

CraftROBO Accessories and Materials

See www.techsoft.co.uk/Products/KnifeCuttingToolsAccessories & www.techsoft.co.uk/Products/KnifeCuttingMaterials for details.

Plotter Paper / Pens

See page 43 for details.

Ink Cartridges

* When ordering, where COL is included in the order code, please specify colour required.

TrueVIS Ink (for TrueVIS)

TrueVIS Ink offers wide colour gamut printing at a lower cost. The ink combines with the latest Roland inkjet devices that boast four FlexFire™ print heads to ensure every drop of ink falls exactly where it is intended. This delivers beautiful images and uniform colours at production speeds. They last up to 3 years outdoors with no-lamination, dry times are super fast and the ink is GREENGUARD Gold Certified.



RPL-TVI-COL*	500cc TrueVIS Ink Cartridge. Available in Black, Cyan, Magenta, Yellow, Light Cyan, Light Magenta, Light Black and White.	75.99
RPL-TVI-CC	500cc TrueVIS Cleaning Cartridge.	75.99

Eco-Sol Inks (for VersaCAMM & VersaStudio)

Roland are constantly developing and improving their eco-solvent inks, so there are now three different inks available - Eco-Sol Max, Eco-Sol Max2 and Eco-Sol Max3. **It is important that you select the appropriate ink for your machine.** All cartridges are clearly labelled, so unless you wish to upgrade your machine, please choose the ink-type currently in use.

N.B. Most older machines can be upgraded to use Eco-Sol Max3 ink if desired - the upgrade involves updating software and firmware as well as doing a special cleaning routine. All cartridges must be changed at the same time. For further details see: www.techsoft.co.uk/Products/KnifeCuttingToolsAccessories/InkCartridges

Eco-Sol Max3 Ink

Eco-Sol Max3 is the latest in a range of eco-solvent inks from Roland. The ink offers even better overall performance with even faster drying times, bigger cartridges and a lower price per ml of ink. Eco-Sol Max3 is now supplied with all new machines. Eco-Sol Max3 is available in six colours: cyan, magenta, yellow, black, light cyan, light magenta and light black. (For white or metallic, use Eco-Sol Max2 cartridges with these.)



RPL-VS-I3-COL*	220ml Eco-Sol Max3 for the latest (or updated) VersaSTUDIO or VersaCAMM. Available in Black, Cyan, Magenta or Yellow.	67.99
RPL-VC-I3-COL*	500ml Eco-Sol Max3 for the latest (or updated) VersaCAMM. Available in Black, Cyan, Magenta or Yellow. Also Light Cyan, Light Magenta and Light Black for VersaCAMM VSi 7 or 8 colour configuration.	84.99
RPL-VC-12-CC	220cc Cleaning Cartridge for use with Eco-Sol Max2 and Eco-Sol Max3 Inks	84.99

Eco-Sol Max2 Metallic and White Ink

RPL-VC-12-WT	220cc Metallic Eco-Sol Max2 Ink Cartridge for VersaCAMM VSi and VersaStudio. (Use with Max2 or Max3 colour cartridges only)	181.99
RPL-VC-12-W	220cc White Eco-Sol Max2 Ink Cartridge for VersaCAMM VSi and VersaStudio. (Use with Max2 or Max3 colour cartridges)	80.99

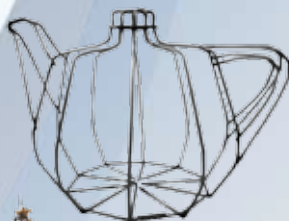
Original Eco-Sol Max Ink

Eco-Sol Max ink is the original eco-solvent ink.



RL254-COL*	220ml Eco-Sol Max. Available in Black, Cyan, Magenta and Yellow. Also Light Cyan or Light Magenta for VersaCAMM 6 or 8 colour configuration.	64.99
RL260-COL*	440ml Eco-Sol Max for VersaCAMM only. Available in Black, Cyan, Magenta and Yellow. Also Light Cyan or Light Magenta for VersaCAMM 6 or 8 colour configuration.	82.99
RL254-MS	220ml Eco-Sol Max, Metallic Silver. N.B. Can only be used in VersaSTUDIO 5 colour metallic or VersaSTUDIO 8 colour configuration.	181.99
RL266	220ml Cleaning Cartridge. Please specify ink to be used with.	84.99
RPL-VS-WCOL	Waste Collection Unit for VersaSTUDIO BN-20.	69.95

Wire Bending



Technology

Art & Design

Textiles

The World's first Desktop CNC Wire Bender

What is a DIWire?

DIWire is a small machine that bends wire into elaborate shapes by following simple vector drawings. The bent wires can then be assembled to make just about any 3D structure.

Ease of Use

First design the shape you require in any design software that outputs .dxf or .svg files – TechSoft 2D Design is ideal (see page 12). Next, drag and drop the file into the Wireware software provided. Wireware tells you the length of the wire needed and detects any points in the image that the machine cannot bend. Simply connect the DIWire to your computer with a USB cable, load the wire and then press "Bend" in the software to bend your shape in just minutes.

How Does It Work?

Wire is loaded into one end, where a series of feeding rollers ensure it's straight before sending it to a bending head. The machine is capable of forming curves and angles up to 135° while rotating the wire in any direction, giving users freedom in their designs.

Creative Designs

Individual bent wires can be soldered or clipped together to create fantastic 3D structures. DIWire provides endless possibilities for Art and Design students.

Specification

Dimensions:	241(W) x 368 (D) x171(H) mm
Weight:	10.8 kg
Diameter Range:	1 mm to 4.7mm
Materials:	Steel, Stainless Steel, Aluminium, Brass, Copper, Cold Bend Plastic
Maximum Bend Angle:	135°
Interface:	USB

Prices £*

*See Pricing Information on page 2

TM-DW18	DIWire CNC Wire Bender. Includes 1/8" bend head and feed wheels and DIWire Wireware software	2600.00
Rods		
TAW3-PK1	Mixed Pack of 10 rods, 3m length, diameter 1/8". 4 bright mild steel, 3 brass, 3 aluminium	79.00
TAW3-BMS8-10	Pack of 10 Bright Mild Steel Rods 1/8" diameter, 3m length.	58.00
TAW3-BR8-10	Pack of 10 Brass Rods 1/8" diameter, 3m length.	75.00
TAW3-AL8-10	Pack of 10 Aluminium Rods 1/8" diameter, 3m length.	110.00
Clips		
TMP-DW-PCC100	Pack of 100 Pre-Cut Parallel Joint Clips Cut to 3/8"	19.95
TMP-DW-UCC10	Pack of 10 Uncut Parallel Joint Clips 12" long	19.95
TMP-DW-UMC10	Pack of 10 Universal Metal Clips Metal fixture clips for 1/8" wire	32.00
Wire Cutters		
TMP-DW-MBC	DIWire Mini Wire/Bolt Cutters 8-inch Lever Action Mini-Bolt Cutter with Notch	42.00

Recommended Software

2D Design V2 (page 12)

Whats Included?






Software






DIWire Wireware Software. Imports DXF and SVG files to output to the wire bender.

Warranty

UK Mainland & Ireland: 1 Year Return to Base
Elsewhere: 1 Year Return and Collect

Machine Comparison Chart

Machine	Page	Price	Build Size	Layer Resolution	Model Material	Support Material	Support Removal
CEL UK							
Robox 	52	£950	210 x 150 x 100mm	0.02mm	PLA / ABS	Model Material	Manual
RoboxDual 	52	£1,245	210 x 150 x 100mm	0.02mm	PLA / ABS	Support Material	Manual
Roland							
ARM-10 	55	£3,175	130 x 70 x 70mm	0.1mm	UV Resin	Model Material	Manual
Stratasys Mojo							
Mojo 	56	£6,848	127 x 127 x 127mm	0.178mm	ABS Plus	Soluble Support	WaveWash55
Stratasys uPrint							
uPrint SE 	56	£11,028	203 x 152 x 152mm	0.245mm	ABS Plus	Soluble Support	WaveWash
uPrint SE Plus	56	£14,495	203 x 203 x 152mm	0.254 / 0.33mm	ABS Plus	Soluble Support	WaveWash

Machine	Page	Price	Warranty	Connection	Software Provided (stl to manufacture)	Fill Styles
CEL UK						
Robox 	52	£950	2 Year Return to Base	USB	Automaker	3
RoboxDual 	52	£1,245	2 Year Return to Base	USB	Automaker	3
Roland						
ARM-10 	55	£3,175	1 Year On-Site	USB	monoFAB Player AM	Solid
Stratasys Mojo						
Mojo 	56	£6,848	1 Year On-Site	USB	Print Wizard	2
Stratasys uPrint						
uPrint SE 	56	£11,028	1 Year On-Site	Ethernet	Catalyst EX	3
uPrint SE Plus	56	£14,495	1 Year On-Site	Ethernet	Catalyst EX	3

New CEL Robox 3D Printer

What is a Robox?

The Robox 3D printer is a compact desktop 3D printer with a surprisingly big build volume of 210 x 150 x 100mm. It has been designed with both safety and visibility in mind, making it the ideal 3D printer for education. The transparent slide-up cover is automatically locked when a build is in progress.

The Robox has some smart features like an auto-levelling print head and a print bed that requires no extra help to keep prints firmly stuck to its surface. The print bed is



made from polyetherimide, a plastic that becomes sticky when hot. No tape or glue is required. Once the bed cools down and loses its special heated properties, items just lift off easily.

The Robox's standard single material printhead has two nozzles, a 0.3mm one which is dedicated to printing fine details and a 0.8mm one for infill. The infill nozzle puts out more filament allowing print times to be reduced. Auto-levelling of the printer occurs every time a print is started. The print head touches itself to the print bed several times to ensure both of the nozzles are at the right height.

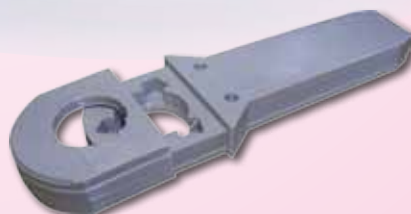
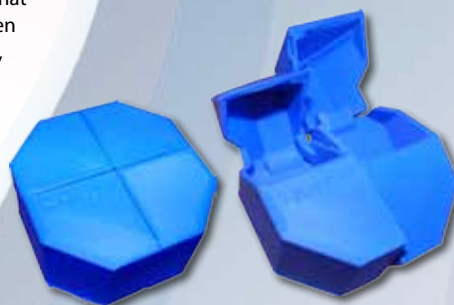
The Robox comes with its own Automaker software which provides a very simple three step process - select file, go to print setting then print. The microchipped filament reel system lets the software know what filament it is working with, so that optimum print settings are set automatically. The user just has to select between Draft (low quality), Normal (medium quality) or Fine (high quality). A fourth option, Custom, is also provided for the more experienced user who wants to control the settings themselves.

Most users will find PLA material will give good results and perfectly adequate strength for most student projects. PLA is made from renewable resources, primarily starch, so it is both recyclable and biodegradable. 3D printing in PLA is very easy due to a low melting temperature. If greater strength is needed then ABS filament is an option. ABS is an excellent material for general use - it is strong and resistant to damage over a large temperature range. Both ABS and PLA filaments are available in a wide range of colours.

The optional dual material head upgrade offers the possibility of using two materials in the same build. If one of these materials is the soluble support material (HIPS) then there are no limits to the complexity of the part that you can build, as the "soluble" part can simply be dissolved away in Limonene. Limonene, or citrus oil, is produced as a by product of orange juice manufacture so it is completely safe to handle.

Why Do I Need One?

Students using SolidWorks or any mainstream 3D CAD platform will, sooner or later, need to turn ideas into real parts for projects. Provided either PLA or ABS is a suitable material for the project, then the Robox provides the most economical and simplest way to achieve this goal. If you are looking for a 3D printer for your school or college, then you should certainly consider a Robox, or better still a suite of Robox's, because of their versatility, useability, high quality, affordability and safety.



Robox 3D Printer



Specification

Max build size: 210 x 150 x 100mm
 Model Material: PLA, ABS and more (see next pg)
 Slice Resolution: 0.02mm (20 microns)
 Interface: USB
 Dimensions: 370(W) x 340(D) x 240(H)mm
 Weight: 8.3kg

RoboxDual 3D Printer



Robox Dual has the ability to print two materials at once. This dual material printing allows parts to be created which were previously difficult or even impossible with a single material printer. By creating a support structure with a material which can peel away or be dissolved from the model easily, the accuracy of overhangs is increased and the supports can still be removed without damaging the model.

Specification

Max build size: 210 x 150 x 150mm
 Model Material: PLA, ABS and more (see next pg)
 Slice Resolution: 0.02mm (20 microns)
 Interface: USB
 Dimensions: 370(W) x 340(D) x 240(H)mm
 Weight: 9.5kg

Robox Tree with Root



Robox Tree is a space-efficient furniture solution designed to maximise available classroom space and increase 3D printing productivity. Up to 10 nozzles and materials can print in the same print job. The Root connects multiple Robox 3D Printers to AutoMaker's user interface. Multiple machines can also be accessed and controlled remotely via Root's web-based interface with PIN access control.

Specification

Dimensions: 430(W) x 430(D) x 1,100(H)mm
 (MP2-RBX1-BI & MP2-RBX1-BK)
 430(W) x 430(D) x 1,600(H)mm
 (MP4-RBX1-BI & MP4-RBX1-BK)

Automaker Software

Just three simple steps:



AutoMaker™



1. Load the stl file



2. Select Draft (low quality), Normal (medium quality) or Fine (high quality). (Custom is also provided for the more experienced user who wants to control the settings themselves.)



3. Select Output



What's Included

Each Robox is supplied with a TechSoft User Guide. This gives you everything you need to get the machine out of the box and earning its keep in the shortest time possible. Not only does it take you step by step through using the Automaker software to manufacture a pre-designed 3D part, it also shows how to design and then manufacture your first 3D part using SolidWorks 3D CAD software (60 day trial version supplied for those that do not have this software).



Prices £*

*See Pricing Information on page 2

Education Packages (Single Machine)

MP-RBX1	Robox 3D Printer. Includes machine, software, TechSoft User Guide + 1 reel material.	950.00
MP-RBX2	RoboxDual 3D Printer. Includes machine, software, TechSoft User Guide + 1 reel material.	1,245.00

Education Packages (Multiple Machines)*

MP2-RBX1-BI	2 x Robox with 3 Shelf Birch Tree with Root. 430x430x1100mm. Includes TechSoft User Guides.	1,995.00
MP4-RBX1-BI	4 x Robox with 5 Shelf Birch Tree with Root. 430x430x1600mm. Includes TechSoft User Guides.	3,940.00
MP2-RBX1-BK	2 x Robox with 3 Shelf Black Tree with Root. 430x430x1100mm. Includes TechSoft User Guides.	2,020.00
MP4-RBX1-BK	4 x Robox with 5 Shelf Black Tree with Root. 430x430x1600mm. Includes TechSoft User Guides.	3,965.00

Wireless Control

TMP-RBX-RT1	Robox Root	74.00
TMP-RBX-SD1	Robox Root SD Card v1	33.00

Upgrade to Dual Material Head

TMP-RBX-DMKF	Dual Material Kit for Robox. Machine must be returned to TechSoft.	330.00
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Recommended Software

SolidWorks (page 18)

*Robox Trees also sold separately, see next page

3D Printing

Robox Materials

Materials

SmartReel TechABS Range



TMP-RBXMTA-COL*	Robox Reel of 1.75mm TechABS Filament (0.7Kg, 240m). Available in black, blue, green, grey, orange, red, yellow, natural and white	22.40
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SmartReel Original PLA Range

An extensive choice of materials is available in the original SmartReel range. Choose between 12 different colours plus clear.



Available in; Black as Night, Designer Grey, Dynamite Red, Highway Orange, Mellow Yellow, Slime Green, Chroma Green, Sky Blue, Cornflower Blue, Amethyst Purple, Hot Pink, Polar White, Crystal Clear ABS, Natural Clear PLA

TMP-RBXMP-COL*	Robox Reel of 1.75mm PLA Filament (0.7Kg, 240m).	22.40
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SmartReel ColorFabb nGen

The ColorFabb nGen co-polyester is a low-odour, styrene-free filament that provides a brighter gloss finish with superior toughness and temperature resistance. It also works especially well for models with overhangs.



Available in; Black, Light Blue, Dark Blue, Clear, Gold, Light Green, Dark Green, Light Grey, Dark Grey, Metallic Grey, Silver, Orange, Pink, Purple, Red, White and Yellow

TMP-RBXMCN-COL*	Robox Reel of ColorFabb nGen.	24.90
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SmartReel Special Range



Woody Beech PLA contains no wood but imitates natural wood perfectly. The material is 35-40% lighter than ordinary PLA and is perfect for printing any number of 'wooden' structures from dolls houses to garden ornaments, chess sets, pen pots, etc.

ThermoChrome PLA filament prints just like normal PLA but has an additive which enables a colour-changing feature. When the material is cold it is deep purple, but as it warms it changes colour to light pink – perfect when printing wearable items such as necklaces and wrist straps, bath thermometers, children's toys, etc.

FLEX. With just the right amount of flex, colorFabb's nGen_FLEX is a flexible material still capable of being fed through a Bowden tube and printed at regular PLA speeds. Prints beautifully by itself or in dual material applications with any CO-PET in colorFabb's nGen range.

HIPS is an impact-resistant plastic which can be used as a support material. It dissolves in Limonene which is produced from a renewable source (citrus oil, as a byproduct of orange juice manufacture). HIPS would normally be used with the dual material kit for soluble support removal.

TMP-RBXMSH-WB	Robox Half Reel of Woody Beech PLA.	21.50
TMP-RBXMS-TC	Robox Reel of ThermoChrome.	27.50
TMP-RBXMF-BK	Robox Reel of Flexible Black Filament	29.00
TMP-RBXMS-NH	Robox Reel of Natural HIPS.	20.75

Breakaway Support Material

TMP-RBXMSH-SUP	Robox Half Reel of 1.75mm Breakaway Support Filament (0.35Kg, 120m)	22.40
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Accessories

General Accessories

TMP-RBX-REEL1	Empty Robox Smart Reel with blank EEPROM	10.75
TMP-RBX-TWZ1	Tweezers for Robox	4.10
TMP-RBX-AW10	Pack of 10 Alcohol Wipes for Robox	0.85
TMP-RBX-LUB1	70ml Bottle of Lubricant for Robox	8.25
TMP-RBX-TWB1	Silicon Tip Wipe Blade for build plate of Robox	2.45

Spare Parts

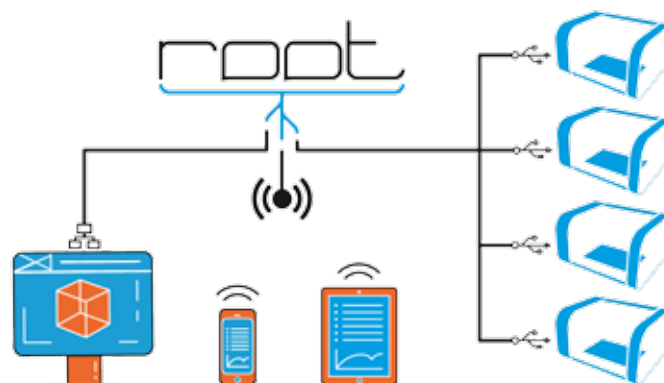
TMP-RBX-MH1	Replacement Single Material Dual Nozzle Head for Robox	124.00
TMP-RBX-MH2	Replacement Dual Material Head for Robox	140.00
TMP-RBX-EXT1	Replacement Extruder for Robox	90.00
TMP-RBX-BED1	Replacement Bed Sheet for Robox	20.75

Tree with Root

SF-RBX3R-BI	3 Shelf Birch Tree for Robox (Normally used for 2 machines). 430x430x1100mm.	170.00
SF-RBX5R-BI	5 Shelf Birch Tree for Robox (Normally used for 4 machines). 430x430x1600mm.	215.00
SF-RBX3R-BK	3 Shelf Black Tree for Robox (Normally used for 2 machines). 430x430x1100mm.	215.00
SF-RBX5-BK	5 Shelf Black Tree for Robox (Normally used for 4 machines). 430x430x1600mm.	255.00

Tree without Root

SF-RBX3-BI	3 Shelf Birch Tree for Robox (Normally used for 2 machines). 430x430x1100mm.	120.00
SF-RBX5-BI	5 Shelf Birch Tree for Robox (Normally used for 4 machines). 430x430x1600mm.	165.00
SF-RBX3-BK	3 Shelf Black Tree for Robox (Normally used for 2 machines). 430x430x1100mm.	165.00
SF-RBX5-BK	5 Shelf Black Tree for Robox (Normally used for 4 machines). 430x430x1600mm.	205.00



*When ordering, where COL is included in the order code, please change this to specify the actual colour(s) required.

Roland ARM-10



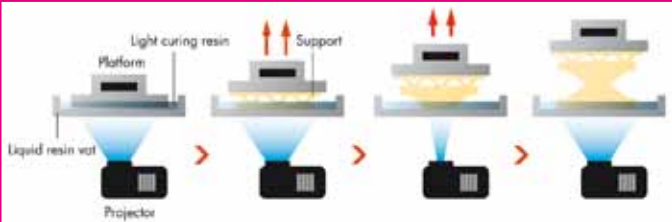
New 3D Printer from Roland

What is an ARM-10?

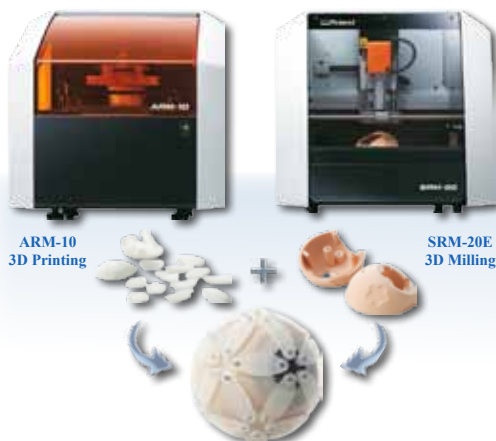
The Roland ARM-10 is a revolutionary new 3D-printing device that builds smooth, precise models using photo-sensitive imageCure liquid acrylic resin. The machine is driven by included software that accepts 3D .stl files and converts them into a series of slices that build to complete the model. Models are then created by projecting an image of each slice onto the resin-wet base of the build platform. The software takes care of any structural support needed and automatically includes this into the build. ARM-10 technology brings a number of unique benefits. Because the model is produced in suspension, resin usage is minimised and less material is needed to create support structure. In contrast to scanning or rastering techniques, curing each layer by momentary projection of the slice image is quick and provides for faster build times. On completion, the model is washed in isopropanol alcohol cleaning fluid, and supports are snipped away. After curing in UV light (sunlight), the translucent models can be left 'as printed', polished or painted as required. ARM-10 will provide a valuable resource for commercial users and higher education. In the classroom, the materials used by ARM-10 need careful handling so close supervision will be needed.

An ARM-10 provides professional 3D-print capability at a price that rivals budget machines but with model properties that are otherwise unattainable in this sector. ARM-10 is the first 3D printing device to be developed and produced by Roland DG, an established major player in the global prototyping market, and signifies an important new dimension to their product portfolio. With the Roland brand behind it, ARM-10 users can be assured of solid back-up, reliable technical advice and dependable customer support well into the future. Machines also benefit from a full Roland one year warranty.

How it works



Milling technology sits alongside 3D Printing to provide full capability for all rapid prototyping demands. The new SRM-20E and ARM-10 machines from Roland DG bring together precision Subtractive Rapid Manufacturing (SRM) and Additive Rapid Manufacturing (ARM) into a 'matched-pair' of stylish, affordable desktop machines. See page 74 for full details of the SRM-20E.



Specifications

Max Build Size:	130 x 70 x 70mm
Model Material:	imageCure™ photopolymer resin (semi transparent)
Slice Resolution:	0.1mm
Interface:	USB
Weight:	17kg
Dimensions:	430(W) x 365(D) x 450(H)mm
Warranty:	1 Year On-Site

Prices £*

*See Pricing Information on page 2

Starter Package

MP-RL-ARM10E	Roland ARM-10E Starter Package. Includes machine with resin tray and washing kit, 3 bottles imageCure resin, 5 litres isopropynol cleaning fluid and pack of 100 disposable gloves. <i>Save £22</i>	3,199.00
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Machine Only

RL-ARM10	Roland ARM-10 c/w resin tray and washing kit	2,999.00
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Consumables

RLP-ARM-RESIN1	350g bottle of Standard Hard Resin	49.95
RLP-ARM-RESIN2	350g bottle of Flexible Resin	69.95
RLP-ARM-RESIN3	350g bottle of Rubberlike Resin	69.95
RLP-ARM-VAT1	Replacement Resin Tray 	99.00
MMP-ISOCF1	5 litres Isopropanol Alcohol Cleaning Fluid (for cleaning parts made on the ARM-10) 	22.50
TMS-LAS-GLOVES	Pack of 100 Medium Vinyl Gloves (powder free)	4.95

Optional Extras

Parts can be cured quicker by exposure to a UV light source - a manicurist's nail drier will do the job.

Washing unused material from complex parts can be enhanced by using a suitable jewellers ultrasonic tank.

Recommended Software

SolidWorks (page 24)



3D Printers Build Real Plastic Parts from 3D CAD Models

Why Do I Need One?

Students using SolidWorks or any mainstream 3D CAD platform will, sooner or later, need to turn ideas into real parts for projects. 3D milling has its place, but an accurate, functional part in ABS plastic will often do the job well. uPrint SE and Mojo machines build using Fused Deposition Modelling (or FDM) by extruding a fine filament of molten ABS plastic. A second filament of support structure is also extruded.

Soluble Support Advantage

Mojo and uPrint SE both use SST (Soluble Support Technology), the support material being gently removed by dissolving away. With SST (Soluble Support Technology) there is no limit to the complexity of the part you can build. For most jobs, parts will be completely functional and can be used straight from the machine. Their smooth-textured, satin finish is not unattractive and faithfully represents both the dimensional and aesthetic qualities of the CAD model.

uPrint has been developed to give designers a truly in-house means of Rapid Prototyping with no compromise on part quality. Mojo takes this class-leading technology and presents it in the most compact desktop format yet to be seen. TechSoft have been selling Stratasys FDM machines into education since 2004 so we know how accurate and reliable the process is. We have developed a close relationship with Stratasys so customers can have total confidence in knowing that their investment is secure long into the future.

Which Machine Should I Choose?

uPrint SE has the larger build-envelope but Mojo offers educational users additional benefits. Model and Support material are each supplied as a complete QuickPack™ Print Engine cartridge that simply slots into the machine, meaning minimal maintenance and no calibration or set-up routine. Both machines are supplied with software to import 3D .stl files and build them. The software allows students to set a preferred build strategy and analyse the effect of these settings before committing to a build. Mojo requires a dedicated PC to operate the machine; uPrint SE downloads the file and builds the model independently.

Support Removal System – You Choose

uPrint SE machines are supplied with either the WaveWash or SCA-1200HT Support Removal System. The WaveWash uses sachets of Ecoworks and plumbs into mains water and drainage, making it as simple as a dishwasher to operate. The SCA-1200HT has a larger load capacity and the Ecoworks solution remains in the tank until no longer effective. It is then manually drained and replenished - parts are hand washed in a sink. This means plumbing is not needed and operation will be slightly more economical. Parts for processing can also be larger. Individual circumstances and preferences will be the deciding factor so – you choose.

Mojo has its own WaveWash 55 system which needs no plumbing and sits on the desktop just like a domestic kettle. All systems run quietly to dissolve away support material, they make no mess and are designed for ease of use.



Spray Painted Model

Spray Painted Model with 'Print & Cut' stickers

Mojo 3D Package



Designed to balance price, 'footprint' and capacity, Mojo is ideal for many schools and colleges. SST technology and 0.178mm resolution means no limit to model complexity. Can be supplied with a complete package including the Wavewash 55 Support Removal System.

Specification

Max build size: 127 x 127 x 127mm
 Model Material: ABS Plus (various colours)
 Slice Resolution: 0.178mm
 Interface: USB
 Dimensions: 630(W) x 450(D) x 530(H)mm
 Weight: 27kg
 Removal System: WaveWash 55 (see page 56)

uPrint SE 3D Package



A compact machine but with sufficient build capacity for 3D printing complete student projects – not just components. Features SST technology and 0.25mm resolution - allows for complex models with good surface finish. Can be supplied as a complete package with the Wavewash or SCA-1200HT Support Removal System.

Specification

Max build size: 203 x 152 x 152mm
 Model Material: ABS Plus (Ivory only)
 Slice Resolution: 0.25mm
 Interface: Ethernet
 Dimensions: 635(W) x 660(D) x 786(H)mm
 Weight: 76kg
 Removal System: WaveWash or SCA-1200HT (see page 56)

uPrint SE Plus 3D Package



Compact size, price and a choice of 9 colours for models means most schools and colleges will find the uPrint SE Plus will give them everything they need. Features SST technology and the option of 0.33mm resolution for faster builds. Can be supplied as a complete package with the Wavewash or SCA-1200HT Support Removal System.

Specification

Max build size: 203 x 203 x 152mm
 Model Material: ABS Plus (various colours)
 Slice Resolution: 0.25mm (or 0.33mm)
 Interface: Ethernet
 Weight: 76kg
 Dimensions: 635(W) x 660(D) x 786(H)mm
 Removal System: WaveWash or SCA-1200HT (see page 56)

Workstation for Mojo

This workstation provides complete 'plug-and-play' convenience for 3D Printing. Features integral wiring and sockets. The lockable doors reveal ample storage below for consumables. Mounted on heavy-duty lockable castors, the workstation can be easily moved to where needed and it is powered by a single 13A socket.



Specification

Dimensions: 1400(W) x 800(D) x 850(H)mm
 Weight: 180kg

Stand/Cupboard for uPrint SE

The perfect complement for a uPrint SE 3D Printer, this robust workstation provides a smart way to present the machine at the right working height and to store all the tools and materials that come with it. Features capacious storage, sturdy drawers and a lockable door.



Specification

Dimensions: 700(W) x 800(D) x 850(H)mm
 Weight: 76kg

Prices £*

*See Pricing Information on page 2

Mojo

Each Mojo 3D printer is supplied with Print Wizard software and start-up supplies (328cc model material, 131cc support material, 2 bases). There is a one year on-site warranty.

MP-MJ3D-COM	Mojo 3D Printer Only.	6,575.00
MP-MJ3DR1-COM	Mojo with WaveWash 55 Removal System & 24 Ecoworks tablets (see page 56)	6,848.00

uPrint SE

Each uPrint SE 3D printer is supplied with Catalyst software, start-up supplies (1 model spool, 1 support spool, 6 bases) and commissioning and training on the same day. There is one year on-site warranty.

MP-USE-COM	uPrint SE 3D Printer Only	9,640.00
MP-USER1-COM	uPrint SE with WaveWash Removal System & 24 Ecoworks cleaning sachets (see page 56)	11,028.00
MP-USER2-COM	uPrint SE with SCA-1200HT Removal System & 24 Ecoworks cleaning sachets (see page 56)	11,028.00

uPrint SE Plus

Each uPrint SE Plus 3D printer is supplied with Catalyst software, start-up supplies (1 model spool, 1 support spool, 6 bases) and commissioning and training on the same day. There is one year on-site warranty.

MP-USEP-COM	uPrint SE Plus 3D Printer Only	13,110.00
MP-USEPR1-COM	uPrint SE Plus with WaveWash Removal System & 24 Ecoworks cleaning sachets (see page 56)	14,495.00
MP-USEPR2-COM	uPrint SE Plus with SCA-1200HT Removal System & 24 Ecoworks cleaning sachets (see page 56)	14,495.00

Recommended Extras

TF-WS3-C2	TechSoft Mobile Workstation for Mojo 1400x800x850mm	1,575.00
TF-WS4-C1	Wheeled Stand/Cupboard 700x800x850mm for uPrint SE or uPrint SE Plus	855.00

Accessories and Materials

For our full range of accessories and materials see pages 56-57

Recommended Software

SolidWorks (page 18)

Support Removal System for Mojo/uPrint

Wavewash 55 Support Removal System

Designed to partner the Mojo 3D Printer, Wavewash 55 is a compact unit that does not need plumbing to mains water or drainage. It will accept the largest models Mojo will produce. The 3.78 litre tank needs a single Ecoworks tablet to make an active solution. Once filled and activated, Wavewash 55 manages the cleaning process automatically. Filling, draining and final part washing is a done manually so siting near to a sink will be beneficial.



Tank Capacity: 3.78 litres
Weight: 5kg
Dimensions: 335(W) x 335(D) x 335(H)mm

Exclusively for the Mojo 3D Printer

TM-DIM-CS9	Wavewash 55 Support Removal System (Free Standing – Maximum model size 127 x 127 x 127mm)	695.00
TMP-MJ-SRPK	Pack of 24 Ecoworks Tablets (use one tablet with every 3.78 litres of water)	77.00
TMP-MJ-RB	Wavewash 55 Replacement Bushing	7.50

Wavewash Support Removal System

Wavewash needs connection to cold mains water and drainage in the same way as a domestic dishwasher – and it shares other similarities. Operation is fully automatic, Wavewash runs a simple cycle that dissolves support material and thoroughly washes the model ready for use. Ecoworks is added in convenient sachet form and options allow for a full or half load. Wavewash accommodates the largest models possible from all uPrint and HP Designjet 3D printers.



Tank Capacity: 15.1 litres
Weight: 17kg
Dimensions: 484(W) x 432(D) x 439(H)mm

Recommended for uPrint and HP Designjet 3D Printers

TM-DIM-CS7	Wavewash Support Removal System (Requires plumbing – Maximum model size 203 x 203 x 152mm)	1,575.00
TMP-DIM-SRPK	Ecoworks Cleaning Agent (24 sachets, use 1 sachet for every 7.5 litres of water)	65.00
TMP-DIM-WWN5	5 Wavewash Replacement Model Retention Nets	65.00

SCA1200HT Support Removal System

This free standing unit requires no plumbing but needs to be sited near a sink for manual filling, draining and final part washing. The SCA-1200HT has sufficient capacity to accommodate the largest models from Dimension SST and Elite 3D printers. If plumbing is not available, then the SCA-1200HT is an option for uPrint or HP Designjet users.



Tank Capacity: 46.3 litres
Weight: 29kg
Dimensions: 445(W) x 660(D) x 520(H)mm

Recommended for Dimension SST and Elite.

An option for uPrint and HP Designjet 3D Printers.

TM-DIM-CS10	SCA 1200HT Removal System (Free Standing – Maximum model size 250 x 250 x 300mm)	2,095.00
TMP-DIM-SRPK	Ecoworks Cleaning Agent (24 sachets, use 1 sachet for every 7.5 litres of water)	65.00
TMP-UPR-SOLCON	P400-SC Soluble Concentrate	13.95

Model Material for Mojo/uPrint

Spools and cassettes are not interchangeable so it is essential to select the right material for your machine. Material is supplied in sealed bags. ABS will absorb moisture from the atmosphere so always re-seal bags if part-used spools are to be stored. It is worth noting the quantity of material being ordered and the cost. Catalyst software predicts the amount of material needed so this figure can be used to determine individual part costs.



For Mojo

TMP-MJM-COL	Mojo Quick Pack Model Print Engine (1311cc) (Available in Ivory, Nectarine, Red, Yellow, Olive Green, Blue, White, Steel Grey or Black)	280.00
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For uPrint SE

TMP-USEM-IV	Ivory Model Spool (688cc) for uPrint SE & uPrint SE Plus	140.00
TMP-USEM-IV5	Pack of 5 Ivory Model Spools (688cc each) for uPrint & uPrint SE Plus	675.00

For uPrint SE Plus Available in Ivory, Nectarine, Red, Yellow, Olive Green, Blue, White, Dark Grey or Black.

TMP-USEPM-COL*	Coloured Model Spool (688cc) for uPrint SE Plus	140.00
TMP-USEPM-COL5*	Pack of 5 Coloured Model Spools (688cc each) for uPrint SE Plus. All same colour.	675.00

For uPrint (purchased before 2011)

TMP-UPR-AP	Ivory Model Spool (491cc) for uPrint	115.00
TMP-UPR-APS	Pack of 5 Ivory Model Spools (491cc each) for uPrint. All same colour.	530.00

For HP Designjet 3D

TMP-DJM-IV	Ivory Model Spool (655cc) for HP Designjet 3D	150.00
TMP-DJM-IV5	Pack of 5 Ivory Model Spools (655cc each) for HP Designjet 3D	705.00

For HP Designjet Color 3D Available in Ivory, Nectarine, Red, Yellow, Olive Green, Blue, White, Dark Grey or Black.

TMP-DJM-COL*	Coloured Model Spool (655cc) for HP Designjet Color 3D	150.00
TMP-DJM-5-COL*	Pack of 5 Coloured Model Spools (655cc each) for HP Designjet Color 3D. All same colour.	705.00

Model Material



N.B Opened packages cannot be refunded so please order carefully. If in doubt specify the machine serial number when ordering

Support Material for Stratasys FDM 3D Printers



Spools and cassettes are not interchangeable, BST support must not be used in SST machines and vice versa, so carefully check your machine model when ordering. Most parts will use less support material than model material, but the proportion will vary depending on the model and the chosen build-strategy. One support spool for every three/four model spools should be about right.

For Mojo

TMP-MJM-SUP	Mojo Quick Pack Support Print Engine (1311cc)	280.00
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For uPrint SE and uPrint SE Plus

TMP-USEM-SUP	Support Spool (688cc) for uPrint SE and uPrint SE Plus	140.00
TMP-USEM-SUP5	Pack of 5 Support Spools (688cc each) for uPrint SE and uPrint SE Plus	675.00

For uPrint *(purchased before 2011)*

TMP-UPR-SUP	Support Spool (491cc) for uPrint	110.00
TMP-UPR-SUP5	Pack of 5 Support Spools (491cc each) for uPrint	510.00

For HP Designjet 3D and HP Designjet Color 3D

TMP-DJM-SUP	Support Spool (655cc) for HP Designjet 3D	145.00
TMP-DJM-SUP5	Pack of 5 Support Spools (655cc each) for HP Designjet 3D	680.00



Model Bases for Stratasys FDM 3D Printers



Models are created by building up from one of these disposable, slot-in bases. A new base should be used for every build to ensure the model has a firm grip and can't move, curl or part-company with the base during the build. For economy, it is possible to position smaller parts to use a clean area of an already-used model base. Re-using bases is not recommended and can be a false economy. If a model does 'lift' then the build will almost certainly be lost.

For Mojo

TMP-MJ-BASE	24 Plastic Bases for Mojo (127 x 127mm)	49.00
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For uPrint SE and uPrint

TMP-UPR-BASE24	24 Plastic Bases for uPrint or uPrint SE (203 x 152mm)	90.00
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For uPrint SE Plus

TMP-UPRP-BASE24	24 Plastic Bases for uPrint SE Plus (203 x 203mm)	90.00
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For HP Designjet 3D

TMP-DJ-BASE	24 Plastic Bases for HP Designjet 3D (203 x 152mm)	95.00
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For HP Designjet Color 3D

TMP-DJC-BASE	24 Plastic Bases for HP Designjet Color 3D (203 x 203mm)	95.00
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N.B Opened packages cannot be refunded so please order carefully. If in doubt specify the machine serial number when ordering

Milling / Routing / Engraving

Machine Comparison

Machine	Page	Price	Axis Travel	Max. Feed Rate	Spindle Speed	Resolution	Motor
EGX							
EGX-350E	61	£4,395	305 x 230 x 40mm	60mm/s	5000 - 20000rpm	0.01mm	50W
Modela							
SRM-20E	62	£2,995	203 x 152 x 60mm	30mm/s	100-7000rpm	0.01mm	50W
RotoCAMM							
MDX-40AE	64	£4,995	305 x 305 x 105mm	50mm/s	4500 - 15000rpm	0.01mm	100W
Modela							
MDX-50E	66	£8,995	400 x 305 x 135mm	60mm/s	4500 - 15000rpm	0.01mm	TBC
Modela Pro II							
MDX-540E	68	£14,995	500 x 400 x 155mm	125mm/s	400 - 12000rpm	0.001mm	400W
RouterCAM							
690	70	£15,800	925 x 600 x 175mm	200mm/s	12000 - 24000rpm	0.05mm	1500W
1290	70	£20,750	1220 x 900 x 130mm	200mm/s	6000 - 24000rpm	0.002mm	2200W
1224	70	£31,200	1220 x 2440 x 175mm	200mm/s	12000 - 24000rpm	0.05mm	2200W
CNC Miller							
KX15	71	£6,495	260 x 110 x 180mm	8mm/s	100 - 7000rpm	0.015mm	500W
KX3S	71	£9,305	295 x 150 x 275mm	8mm/s	100 - 3500rpm	0.010mm	1000W
190VMCxi	73	£13,812	225 x 150 x 140mm	33mm/s	350 - 3500rpm	0.010mm	450W
300VMCxi	73	£20,198	304 x 157 x 213mm	83mm/s	200 - 4000rpm	0.010mm	1260W

Machine	Page	Price	Plastic/Resin/ Timber	Metals	Connection	2D Design Output	Solidworks Output
EGX							
EGX-350E	61	£4,395	Yes	Engraves Brass	USB	Direct Control	n/a
Modela							
SRM-20E	62	£2,995	Yes	Engraves Brass	USB	Direct Control	Modela Player 4 (supplied) or Visual Toolpath (extra)
RotoCAMM							
MDX-40AE	64	£4,995	Yes	Engraves Brass	USB	Direct Control	Visual Toolpath*
Modela							
MDX-50E	66	£8,995	Yes	Engraves Brass	USB	Direct Control	TBC
Modela Pro II							
MDX-540E	68	£14,995	Yes	Aluminium	USB	Direct Control	Visual Toolpath*
RouterCAM							
690	70	£15,800	Yes	Aluminium Option	USB Stick	Direct Control	Visual Toolpath*
1290	70	£20,750	Yes	Aluminium Option	USB Stick	Direct Control	Visual Toolpath*
1224	70	£31,200	Yes	Aluminium Option	USB Stick	Direct Control	Visual Toolpath*
CNC Miller							
KX15	71	£6,495	Yes	Steel	Ethernet	Direct Control	n/a
KX3S	71	£9,305	Yes	Steel	Ethernet	Direct Control	n/a
190VMCxi	73	£13,812	Yes	Steel	USB	Via Mill Design	3D GeoCAM*
300VMCxi	73	£20,198	Yes	Steel	USB	Via Mill Design	3D GeoCAM*

*Modela Player / Visual Toolpath / GeoCAM are supplied with relevant machines

Engraving / Milling

Roland EGX-350E



Roland Engravers/Millers are the only engraving/milling machines to be DIRECTLY CONTROLLED from 2D Design V2

Milling/Engraving Machine, Ideal for PCB Production

What is an EGX-350E?

The EGX-350E has been developed by Roland primarily for use as an engraving machine but, with 37mm of usable Z-axis to play with, it is still an excellent 3D capable machine albeit for shallower models. The generous bed size, fast axis travel and 50W spindle motor all make it a serious contender as a main CNC milling resource. Build quality is superb (as you would expect from Roland) and the machine is quiet enough to run in a workshop or studio environment. The entire machining envelope is enclosed by a robust, interlocked case so safety is assured and dust and debris will be largely contained. Operation for 2D work is simple and output is direct from 2D Design V2 with a familiar, simple dialogue to set up tool depths, feeds and speeds. Machine control is via a remote Handy Panel but, apart from switching the machine on to start with, most of the control will be via software through the output dialog box so the Handy Panel will see little use until you start to do 3D work. Top loading tools and the unique TechSoft collet system make tool setting very easy, accurate and reliable. If your main priority is for 2D and 2.5D modelling in light material and PCB production (in particular) then this may well be all the machine you will ever need – more power and bigger capacity is simply not needed for this sort of work.

Unique to this machine is an Active Surface Tracking system (effectively a floating-head arrangement) to maintain consistent cutting depth even on bowed or curved surfaces. If the machine's sacrificial bed is kept skimmed and flat, then this feature is unlikely to be a big advantage, but if you do need to engrave an uneven surface then Active Tracking could well get you out of a tight spot.

Because the machine was developed as an engraving tool it does not come with 3D software so you will need to buy Visual Toolpath. With this added, you will have a versatile and competent machine at surprisingly low cost.

Specification

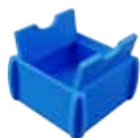
Axis Travel:	305 x 230 x 40mm
Max. Machinable:	305 x 230 x 37mm
Max Feed Rate (X, Y):	60mm/sec
Max Feed Rate (Z):	30mm/sec
Spindle Speed Range:	5000 to 20000rpm
Resolution:	0.01mm
Interface:	USB
Weight:	34kg
Dimensions:	616(W) x 591(D) x 393(H)mm



What's Included

Free Education Training Pack worth £290

The Training Pack gives you everything you need to get the machine out of the box and earning its keep in the shortest time possible. We have distilled key information into a series of tutorials that will guide you through setting-up, and then a series of projects that illustrate the full potential of the machine for simple 2D profiling, PCB isolation engraving and 3D profiling. Each pack contains a project CD, a booklet to guide you and a selection of tools, collets and materials. This includes TechSoft's own tooling and collet system to make tool set-up and tool changing a breeze. Completing the Training Pack is not onerous; it will provide a sample set of project ideas - some of which are shown below - and the confidence to develop your own ideas.



Includes Tools and Accessories worth £210

Slot Drill (TA-SD4-2); Ball Nosed Cutter (TA-BN4-2); Engraving Tool (TA-ECT4-40); VCarving Tool (TA-VCHS4E-90); Lower Collet (TA-LC-TS30); Extraction Attachment (TA-EGX-EXTRING, MMP-EXT-ADAPTPT); Upper Collets (2 x TC-UC-1164); Hex Tool (TA-HEXT00L20); Sacrificial Bed (TC-CAMM2-BED); Lower Bed (TC-EGXACR-BED, TC-EGXMDF-BED); USB Cable (CB031); Tape (TA-TAPE)

Warranty

UK Mainland & Ireland: 1 Year Return to Base
Elsewhere: 1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

MP-ENG-EGX350E	Roland EGX-350E (inc. TechSoft Training Pack)	4,395.00
MP7-ENG-EGX350E	EGX-350E Workstation Package. Includes Machine, TechSoft Training Pack, TechSoft Workstation inc. auto-switched extractor, underbench storage, in-built sockets & Gratnell Trays. See page 184.	6,390.00

Recommended Extras

TF-WS3-C1	TechSoft Workstation for Milling, 1400x800x850mm, inc. extractor. See page 184.	1,995.00
MM-EXTRACTION36	Numatic Standard Extractor, Single Motor (included in TechSoft Workstation TF-WS3-C1). See page 184.	*340.00
RL-ROTO-SWITCH	Mains Switching Unit (included in TechSoft Workstation TF-WS3-C1). See page 87.	120.00

Recommended Tooling For details of these packs and other tooling see page 79

TP-MIX-350E	Mixed Tool Pack (General set of tools) Save £5	119.00
TP-PCB-350E	PCB Tool Pack (Specialist PCB tools) Save £5	85.00

Recommended Materials

See details of this pack on page 87, and our full range of materials on pages 83-87

TPM2-EGX350	Mixed Pre-Cut Materials Pack Save £10	156.00
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Recommended Software

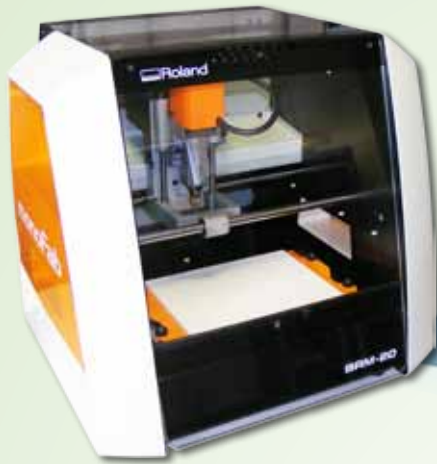
2D Design V2 (page 12), 2D PCB (page 14), Visual Toolpath (page 21) and SolidWorks (page 18)

* N.B. Extraction only required if cutting fine dust materials e.g., foam, MDF, etc.

Milling / Routing / Engraving

Roland SRM-20E

Low Cost 3D Capable Miller/Router/Engraver



Roland Miller/Routers are the only milling/routing machines to be DIRECTLY CONTROLLED from 2D Design V2

What is a SRM-20E?

The SRM-20E is a fully featured 3-Axis CNC milling machine which provides an excellent resource for one-off 2D and 2.5D projects in plastics and common modelling materials. Output for this purpose is direct from 2D Design V2 using the simple, familiar output routine. The SRM-20E also comes into its own for 3D work. The 203 x 152 x 60mm machining envelope is very generous for a machine in this class and will allow for most individual student projects. Models can be machined to fine tolerances with an excellent surface finish. To maximise work flow in a busy workshop, schools could usefully create a 3D Rapid Prototyping centre using two or more SRM-20Es rather than a single, higher capacity but more expensive machine. Machines are supplied with a TechSoft Training Pack and Roland utility software to convert .stl format files for machining. SRM-20 is compatible with Visual Toolpath (see page 21). Although at additional cost, we recommend Visual Toolpath as the most student-friendly way to convert .stl files and configure 3D output.

Why Choose a SRM-20E?

Although an entry-level machine, the SRM-20E is designed and built to professional standards specifically to provide in-house SRM (Subtractive Rapid Manufacturing) capability in a professional design studio. In education, an SRM-20E is sufficiently robust to stand the rigours of the classroom but remains a compact, self-contained resource that could safely be moved if required. Output speed and work capacity is ideal for individual student projects and batch production of smaller items.

CAD/CAM Milling – for Primary Schools Too!

SRM-20E is a friendly, safe and simple machine to use which makes it ideal to introduce genuine CAD/CAM milling to primary pupils. We have developed our 2D Primary software to output directly to SRM-20E. Individual pupils or small groups can now machine their own badges, puzzles or moulds with unprecedented accuracy. They will be learning about modern production methods and gaining experience with a real computer control system.





ARM-10
3D Printing

SRM-20E
3D Milling



Additive Rapid Manufacturing (3D printing) sits alongside Subtractive Rapid Manufacturing (milling) as an alternative 3D prototyping technique. Taken together, SRM and ARM gives designers the versatility they need to be able to produce prototypes and end-use parts for a huge variety of applications. The matched-styling of the ARM-10 and SRM-20E therefore makes perfect sense! The ARM-10 is Roland's ground-breaking new 3D Printer that builds with photo-sensitive resins and an image projection system to cure successive model layers. Resins and materials used in the ARM-10 process do need careful handling though, so classroom use will need close supervision. For full information on the ARM-10, see page 58.

SRM-20E



A fully-featured, compact 3-Axis milling machine with exceptional 3D capability. The SRM-20E provides an ideal resource for individual projects and a versatile platform to demonstrate the full range of 2D, 2.5D and 3D CNC milling technology.

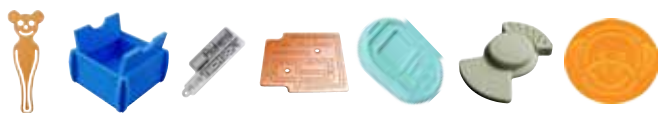
Specification

Axis Travel:	203 x 152 x 60mm
Max. Machinable:	203 x 152 x 60mm
Maximum Feedrate:	30mm/sec
Spindle Speed:	Up to 7000rpm
Resolution:	0.01mm
Interface:	USB
Weight:	19.6kg
Dimensions:	451(W)x427(D)x427(H)mm

What's Included

Free Education Training Pack worth £155

The Training Pack gives you everything you need to get the machine unpacked and earning its keep in the shortest time possible. We have distilled key information into a series of tutorials that will guide you through setting-up, and then a series of projects that illustrate the full potential of the machine for simple 2D profiling, PCB isolation engraving and full 3D modelling. Each pack contains a project CD, a booklet to guide you and a selection of tools, collets and materials. This includes TechSoft's own tooling and collet system to make tool set-up and tool changing a breeze. Completing the Training Pack is not onerous; it will provide a sample set of project ideas - such as the ones shown below - and the confidence to develop your own ideas.



Includes Tools and Accessories worth £85

Slot Drill (TA-SD4MP-2); Engraving Tool (TA-ECT4MP-40); Tool adaptors (2 x TA=ADAPT1-M4); Hex Tools (TA-HEXTOOL20, TX-HEXDRIVER7); Table Spacers (TA-SRM20-SPAC4); Sacrificial Bed (TC-SRM20-BED); Tape (TA-TAPE)

Warranty

UK Mainland & Ireland: 1 Year Return to Base
Elsewhere: 1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

Machine

MP-RL-SRM20E	Roland SRM-20E (includes TechSoft Training Pack)	2,995.00
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Recommended Extras

TF-WS3-C2	TechSoft Workstation 1400x800x850mm, c/w underbench cupboards containing in-built sockets, drawers, shelves and storage space for computer. See page 184.	1,575.00
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Recommended Tooling

For details of these packs and our full range of tools see page 76

TP-MIX-SRM20E	Mixed Tool Pack (General set of tools) <i>Save £5</i>	124.00
TP-3D-40E	3D Tool Pack (Specialist 3D tools) <i>Save £5</i>	101.00
TP-PCB-SRM20E	PCB Tool Pack (Specialist PCB tools) <i>Save £5</i>	114.00

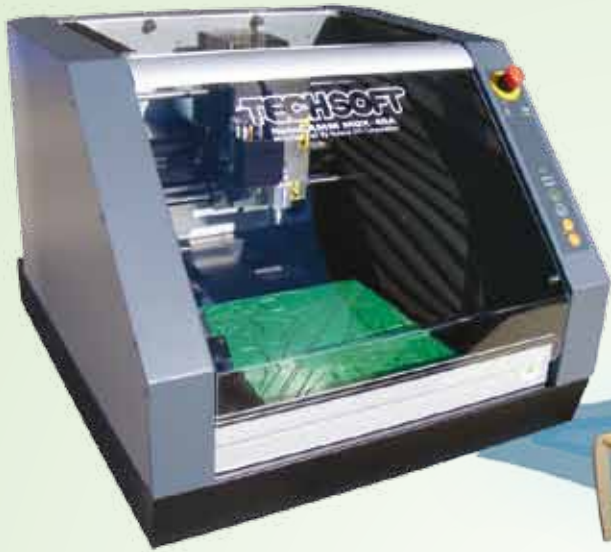
Recommended Materials

See details of these packs on 87, and our full range of materials on pages 83-87

TPM2-MDX20	Mixed Pre-Cut Materials Pack for SRM-20E <i>Save £15</i>	173.00
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Recommended Software

2D Design V2 (page 12), 2D PCB (page 14), Visual Toolpath (page 21) and SolidWorks (page 18)



Versatile 3D Capable Miller/Router/Engraver The Ideal Machine for Schools

What is a RotoCAMM MDX-40AE?

The MDX-40AE has been designed by Roland in close collaboration with TechSoft to provide a low-cost and robust machine specifically to meet the needs of UK education. The machine has an exceptionally large working envelope for its class - the 305mm square bed often allows several pupils' work to be machined in one operation, and 105mm of Z travel will accommodate large-scale 3D models. Rigid, heavy duty construction and a 100W spindle motor allow it to take quite heavy cuts in lighter materials, so fewer passes are needed. Combined with faster axis speeds, throughput now becomes realistic enough for class sets of project work to be machined during normal lesson time. It can even machine light alloys if allowed time for multiple fine passes.

Roland Miller/Routers are the only milling/routing machines to be DIRECTLY CONTROLLED from 2D Design V2



work to be machined in one operation, and 105mm of Z travel will accommodate large-scale 3D models. Rigid, heavy duty construction and a 100W spindle motor allow it to take quite heavy cuts in lighter materials, so fewer passes are needed. Combined with faster axis speeds, throughput now becomes realistic enough for class sets of project work to be machined during normal lesson time. It can even machine light alloys if allowed time for multiple fine passes.

Versatility and Ease of Use

The MDX-40AE is clever too. Connections on the machine allow an optional 3D contact scanner to be fitted and there is even an optional 4th Axis unit to enable advanced machining routines for demanding senior students. To further complete the package we have now developed an optional jig to enable schools to machine streamlined car bodies for the F1 Challenge.

Tool set-up is easy using TechSoft's own top-loading collet system, but the machine also has a standard 6mm collet so a vast array of specialist tooling becomes available including TechSoft's own range of long reach cutters designed for deep 3D machining. For simple 2D profiles, machine set-up and output is direct from 2D Design V2. Should you need full manual control over the machine, then there is an intuitive on-screen Virtual Control Panel. This also lets you use Roland's ingenious Z0 sensor - a unique feature for such a low-cost machine. The sensor gives an easy and precise way to set Z0 when not using top-loading tools.

Why Choose a RotoCAMM MDX-40AE?

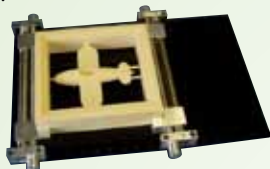
It is always tempting to want for more capacity, more speed and more power, but we believe that the MDX-40E will meet the CNC milling, routing and engraving needs of most departments and at a modest price. It is simple to use, tough and quick enough to deal with day to day work, but clever enough for advanced work if you ask it. Many departments buy two or more of these machines rather than one larger machine. A larger machine may well give you capacity in reserve, but it could be an intimidating prospect for younger pupils in particular.



Optional Extras

Self-Centering Vice

3D machining one side of an object is easy, but if the object needs to be machined all round how do you hold it? TechSoft have designed a low cost solution to this problem, a special self-centering vice (see page 87).



Scanning Head

To enhance the versatility of this superb machine even further, an optional contact scanning head is available. This quickly interchanges with the cutter head and means that just one machine can fulfil all the requirements of most schools for 3D work.



Rotary 4th Axis

The self-centering vice is great, but an even more sophisticated option is available for machining complex 3D objects, the rotary 4th axis. This device is like a mini lathe fitted under the cutter and capable of rotating an object through a full 360°.



The rotary 4th axis allows fully automatic machining of full 3D objects (max billet size 120mm diameter by 270mm long). Software support is via Roland SRP Player supplied free with the rotary 4th axis.

MDX-40AE



Pictured on optional TechSoft workstation for milling (computer not included)

Specification

Axis Travel:	305 x 305 x 105mm
Max Machinable:	305 x 305 x 75mm
Max Feedrate (X, Y):	50mm/sec
Max Feedrate (Z):	30mm/sec
Spindle Speed Range:	4500 to 15000rpm
Resolution:	0.01mm
Interface:	USB
Weight:	66kg
Dimensions:	669(W)x760(D)x554(H)mm

What's Included

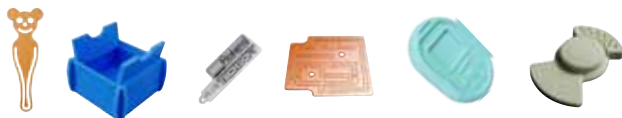
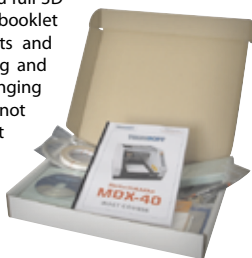
Z0 Sensor

This is a unique feature for such a low-cost machine. The sensor gives an easy and precise way to set Z0 when not using top-loading tools.



Free Education Training Pack worth £170

The Training Pack gives you everything you need to get the machine unpacked and earning its keep in the shortest time possible. We have distilled key information into a series of tutorials that will guide you through setting-up, and then a series of projects that illustrate the full potential of the machine for simple 2D profiling, PCB isolation engraving and full 3D modelling. Each pack contains a project CD, a booklet to guide you and a selection of tools, collets and materials. This includes TechSoft's own tooling and collet system to make tool set-up and tool changing a breeze. Completing the Training Pack is not onerous; it will provide a sample set of project ideas - such as the ones shown below - and the confidence to develop your own ideas.



Includes Tools and Accessories worth £110

Slot Drill (TA-SD4-2); Ball Nosed Cutter (TA-BN4-2); Engraving Tool (TA-ECT4-40); Tool adaptor (TA-ADAPT1-M4); Upper Collets (2 x TC-UC-1164); Sacrificial Bed (TC-TS30-BED); Tape (TA-TAPE)

Warranty

UK Mainland & Ireland: 1 Year On-Site
Elsewhere: 1 Year Return and Collect

* N.B. Extraction only required if cutting fine dust materials eg., foam, MDF, etc.

Prices £*

*See Pricing Information on page 2

MP-ROTO-MDX40AE	TechSoft/Roland RotoCamm MDX-40AE (inc. TechSoft Training Pk & Visual Toolpath Software)	4,995.00
MP7-ROTO-MDX40AE	RotoCamm MDX-40AE Workstation Package. Includes Machine, TechSoft Training Pk, Visual Toolpath Software, Self-Centering Vice and TechSoft Workstation inc. auto-switched extractor with attachment. See page 184.	7,350.00
Optional Extras		
MP-ROTO-ROTARY40A	Optional Rotary 4th Axis (with Roland SRP Player Software)	1,999.00
RL-ROTO-TS30SCAN	Optional Scanning Head	295.00
Recommended Extras		
TF-WS3-C1	TechSoft Workstation for Milling, 1400x800x850mm, inc. extractor. See page 184.	1,995.00
RL-ROTO-VICE	Self-Centering Vice (RotoCamm MDX-40AE)	245.00
RL-ROTO-VAC1	Extraction Attachment	*115.00
MM-EXTRACTION36	Numatic Standard Extractor, Single Motor (included in TechSoft Workstation TF-WS3-C1). See page 184.	*340.00
RL-ROTO-SWITCH	Mains Switching Unit (included in TechSoft Workstation TF-WS3-C1). See page 87.	120.00
Recommended Tooling For details of these packs and other tooling see page 77		
TP-MIX-40E	Mixed Tool Pack (General set of tools) Save £5	119.00
TP-3D-40E	3D Tool Pack (Specialist 3D tools) Save £7	101.00
TP-PCB-40E	PCB Tool Pack (Specialist PCB tools) Save £5	85.00
Recommended Materials See details of this pack on page 87, and our full range of materials on pages 83-87		
TPM2-MDX40	Mixed Pre-Cut Materials Pack Save £15	365.00
Recommended Software 2D Design V2 (page 12), 2D PCB (page 14) and SolidWorks (page 18)		

Milling / Routing / Engraving

Roland Modela MDX-50E



Large, Powerful, Ultra High Speed 3D Capable Miller/Router

What is an MDX-50E?

The Modela MDX-50E CNC mill is an ideal stand-alone modelling solution for the production of short runs, prototypes and pre-production models and final samples. The MDX-50E is also an effective complementary technology to 3D printing as it delivers incredible mechanical accuracy (up to 0.01mm), a smooth surface finish and compatibility with a huge range of materials.

Roland Miller/Routers are the only milling/routing machines to be DIRECTLY CONTROLLED from 2D Design V2



Suitable for professional, industrial and educational applications, the MDX-50E desktop milling device combines precise, automated milling with unmatched ease-of-use and intuitive CAM software, to accelerate prototype production and reduce operating costs. A new automatic tool changer (ATC), built-in control panel, increased machining area and operating speed reduce operation time and simplify production.

This means that users of all abilities and budgets can mill functional parts with incredible quality and mechanical accuracy on a wide range of materials.



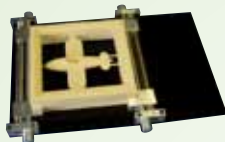
The MDX-50E increases performance with an expanded machining area of 400(X)x305(Y)x135(Z)mm and increased operating speeds (thanks to a faster speed rate), while reducing production time with faster job processing and an automatic tool changer for continuous operation without stopping to change milling tools.



Optional Extras

Self-Centering Vice

3D machining one side of an object is easy, but if the object needs to be machined all round how do you hold it? TechSoft have designed a low cost solution to this problem, a special self-centering vice (see page 87).



Machine Vice

A simple to use quick release machine vice, with 100mm jaw width. Very useful for machining thick materials in billet form, such as machining plastic or aluminium, where double sided tape would not be sufficient. Two Tee-slot bars are required to fix the vice to the bed of the MDX-50.



Tee-Slot Bars

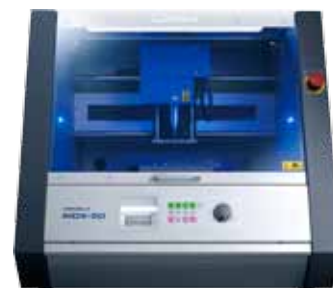
Flat aluminium bars with a tee-slotted profile, allowing for vices, fixtures, or oddly shaped workpieces to be clamped to the bed directly using the 10mm nuts and bolts.



Rotary 4th Axis

The self-centering vice is great, but an even more sophisticated option is available for machining complex 3D objects, the rotary 4th axis. This device is like a mini lathe fitted under the cutter and capable of rotating an object through a full 360°. It allows fully automatic machining of full 3D objects (metal work pieces are not supported). Software support is via SRP Player supplied free with the machine.

MDX-50E



Specification

Axis Travel:	400 x 305 x 135mm
Max. Machinable:	400 x 305 x 100mm
Maximum Feedrate (X,Y):	60mm/sec
Maximum Feedrate (Z):	50mm/sec
Spindle Speed Range:	4500-15,000rpm
Resolution:	0.01mm
Interface:	USB
Weight (with case):	7kg
Dimensions:	760(W)x900(D)x732(H)mm

What's Included

More info coming soon.

Prices £*

*See Pricing Information on page 2

MP-RL-MDX50E	Roland MDX-50E (including TechSoft Inset Pack, 6 x 6mm tool holders, 1 x 4mm tool holder & 1 x 3mm tool holder)	8,995.00
Optional Extras		
RL-MDX50ROT	Rotary Unit for Roland MDX-50E	2,495.00
Recommended Extras		
RL-ROTO-VICE	Self-Centering Vice	245.00
RL-MP-540VAC	Extraction Attachment for MDX-540E	99.00
MM-EXTRACTION36	Numatic Standard Extractor, Single Motor	340.00
Recommended Tooling		
RLP-ZH6	6mm Tool Holder for MDX-50E	24.99
RLP-ZH4	4mm Tool Holder for MDX-50E	24.99
RLP-ZH3	3mm Tool Holder for MDX-50E	24.99
RLP-ZH14	1/4in Tool Holder for MDX-50E	29.99
RLP-ZH18	1/8in Tool Holder for MDX-50E	29.99

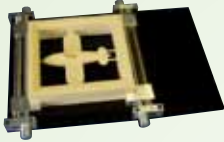
Recommended Software

2D Design V2 (page 12), 2D PCB (page 14) and SolidWorks (page 18)

Optional Extras

Self-Centering Vice

3D machining one side of an object is easy, but if the object needs to be machined all round how do you hold it? TechSoft have designed a low cost solution to this problem, a special self-centering vice (see page 87).



Machine Vice

A simple to use quick release machine vice, with 100mm jaw width. Very useful for machining thick materials in billet form, such as machining plastic or aluminium, where double sided tape would not be sufficient. Two Tee-slot bars are required to fix the vice to the bed of the MDX-540.



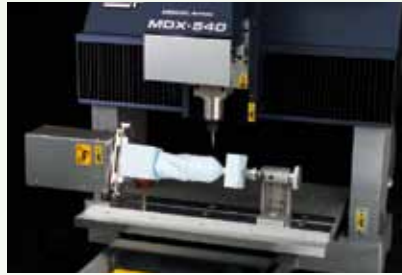
Tee-Slot Bars

Flat aluminium bars with a tee-slotted profile, allowing for vices, fixtures, or oddly shaped workpieces to be clamped to the bed directly using the 10mm nuts and bolts.



Rotary 4th Axis

The self-centering vice is great, but an even more sophisticated option is available for machining complex 3D objects, the rotary 4th axis. This device is like a mini lathe fitted under the cutter and capable of rotating an object through a full 360°. It allows fully automatic machining of full 3D objects (metal work pieces are not supported). Software support is via SRP Player supplied free with the machine.



Specification

Max. Billet Size: 180mm diameter by 371mm
 Max. Cutting Area: 180mm diameter by 285mm
 Max. Revolution: 20rpm
 Weight: 6.5kg

MDX-540AE



shown on optional stand

Specification

Axis Travel: 500 x 400 x 155mm
 Max. Machinable: 500 x 400 x 125mm
 Maximum Feedrate: 125mm/sec (7500mm/min)
 Max. Acceleration: 0.2G
 Motors (X, Y, Z): AC Servo
 Spindle Motor: 400W
 Spindle Speed Range: 400-12,000rpm
 Resolution: 0.001mm
 Interface: USB
 Weight (with case): 170kg
 Dimensions: 1060(W)x1100(D)x978(H)mm

What's Included

Z0 Sensor

The sensor gives an easy and precise way to set Z0.



Free Education Training Pack worth £325

The Training Pack gives you everything you need to get the machine unpacked, assembled and earning its keep in the shortest time possible. We have distilled key information into a series of tutorials that will guide you through setting-up and then a series of projects that illustrate the full potential of the machine for simple 2D profiling, PCB isolation engraving and full 3D modelling. Each pack contains a project CD, a booklet to guide you and a comprehensive selection of tools, collets and materials. This includes TechSoft's own tooling and collet system to make tool set-up and tool changing a breeze. Completing the Training Pack is not onerous; it will provide a sample set of project ideas - such as the ones shown below - and the confidence to develop your own ideas.



Includes Tools and Accessories worth £273

Slot Drill (TA-SD4MP-2); Ball Nosed Cutter (TA-BN4MP-2); Engraving Tool (TA-ECT4MP-40); Tool adaptor (TA-ADAPT1-M4); 6-7mm Collet (TA-COLLET-D67); Locating Rings (2 x TC-M4-LOCRING); Table Spacers (TA-MDX540-SPACER); Hex Tool (TA-HEXT00L20); USB Cable (CB031); Sacrificial Bed (TC-MDX540-BED); Tape (TA-TAPE)

Warranty

UK Mainland & Ireland: 1 Year On-Site
 Elsewhere: 1 Year Return and Collect

* N.B. Extraction only required if cutting fine dust materials eg., foam, MDF, etc.

Prices £*

*See Pricing Information on page 2

MP-MP-MDX540E	Roland Modela Pro II, MDX-540E (inc. TechSoft Training Pk & Visual Toolpath Software)	14,995.00
MP6-MP-MDX540E	Modela Pro II, MDX-540E Standalone Package. Includes Machine, TechSoft Training Pk, Visual Toolpath Software, Stand, Self-Centering Vice, Machine Vice, Tee-Slot Bars and Extractor with attachment.	16,325.00

Optional Extras

RL-MP-540STAND	Optional Stand for MDX-540E	520.00
RL-MP-MDX540ROT	Optional Rotary 4th Axis for MDX-540E	2,995.00

Recommended Extras

RL-ROTO-VICE	Self-Centering Vice (MDX-540AE)	245.00
TA-MDX-TSLOTS	Tee-Slot Bars (Pack of 2)	69.00
TA-MDX-VICE	Machine Vice (Quick Release, 100mm jaw)	59.00
RL-MP-540VAC	Extraction Attachment for MDX-540E	*99.00
MM-EXTRACTION36	Numatic Standard Extractor, Single Motor. See page 184.	*340.00

Recommended Tooling For details of these packs and other tooling see page 78

TP-MIX-540E	Mixed Tool Pack (General set of tools) Save £5	122.00
TP-3D-540E	3D Tool Pack (Specialist 3D tools) Save £7	101.00
TP-PCB-540E	PCB Tool Pack (Specialist PCB tools) Save £5	86.00

Recommended Materials

See details of this pack on page 87 and our full range of materials on pages 83-87

TPM2-MDX540	Mixed Pre-Cut Materials Pack Save £27	773.00
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Recommended Software

2D Design V2 (page 12), 2D PCB (page 14) and SolidWorks (page 18)

Milling / Routing / Engraving

TECHSOFT RouterCAM



RouterCAMs are the only large format routers to be DIRECTLY CONTROLLED through 2D Design V2

Powerful, High Speed, Large Format, 3D Capable Routers

Affordable Full-Size Routing

Full-size furniture projects have a long tradition in Design and Technology, but it can be difficult for students to include CAD/CAM when making them. Available CNC machinery is often too complex to operate, too expensive to buy, or simply not up to the scale required. To meet this need TechSoft are pleased to offer three British-built industrial quality machines that will accept even the largest of student projects, yet remain straightforward to operate and are fully compliant with safety requirements for education. The machines are built for continuous commercial production, so are more than tough enough to stand the rigours of educational use. A quality/capacity/price comparison reveals that these machines also represent exceptional value for money.

Easy Set-up and Control

TechSoft 2D Design V2 is the ideal tool to produce drawings for the RouterCAM and output is largely through the familiar TechSoft output dialog box where feeds, speeds and cutting depths are assigned to colour-coded toolpaths. 3D output is achieved in the same way but from files processed in TechSoft Visual Toolpath. In both cases data is transferred to the machine's own hand controller via USB. Datums can be set manually or (in the case of Z0) by using the sensor unit provided. The RouterCAM spindle is powered by an inverter-driven 3hp motor and axis speeds go up to an astonishing 200mm/sec (12m/min). This means you will always have performance in reserve to get the best results for any given combination of material and cutter diameter. Although designed primarily for machining timber-based panel material, a RouterCAM will also handle suitable plastics, light alloy and even slate, marble, etc.

Work Holding and Extraction

The machines feature an integral vacuum bed for work-holding via a replaceable diffuser sheet. Machines are supplied with the necessary 3ph high-power vacuum pump. A 'brush-foot' extraction attachment is provided and this effectively collects and contains airborne waste. One of our free-standing workshop extractors will provide sufficient power to remove waste or, alternatively, customers may wish to connect to an existing 'ducted' workshop system.



RouterCAM 690



With most of the benefits of the larger machines, this compact new addition to the range is the perfect choice where space is at a premium, or high power routing capability is needed on a tight budget.

Specification

Axis Travel:	925 x 600 x 175mm
Max. Machinable:	925 x 600 x 155mm
Max. Feedrate:	100mm/sec (6m/min)
Spindle Motor:	1.5kW (2hp)
Spindle Speed:	12,000 – 24,000rpm
Max. Collet Size:	16mm
Resolution:	0.05mm
Interface:	Hand controller. Data transfer via USB data device or direct cable connection.
Work Holding:	Vacuum bed & phenolic perimeter grid system.
Weight:	250kg
Dimensions:	1160(W) x 1460(D) x 1670(H)mm
Power Requirements:	240V 25A

RouterCAM 1290



The first choice for schools and colleges wanting a fast, high-power routing facility for maximum productivity with large scale projects.

Specification

Axis Travel:	1220 x 900 x 130mm
Max. Machinable:	1220 x 900 x 110mm
Max. Feedrate:	200mm/sec (12m/min)
Spindle Motor:	2.2kW (3hp)
Spindle Speed:	12,000 – 24,000rpm
Max. Collet Size:	16mm
Resolution:	0.05mm
Interface:	Hand controller. Data transfer via USB data device or direct cable connection.
Work Holding:	Vacuum bed & phenolic perimeter grid system.
Weight:	520kg
Dimensions:	1900(W) x 1600(D) x 1700(H)mm
Power Requirements:	415V 32A

RouterCAM 1224



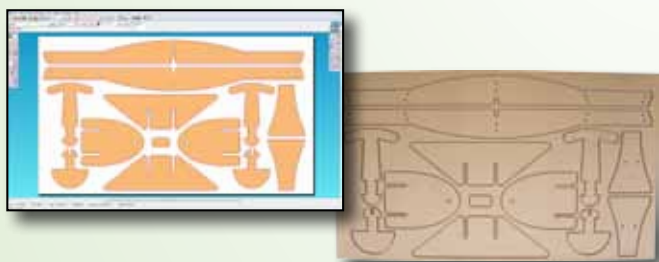
Similar to the RouterCAM 1290, but with the capacity to machine full 1220 x 2440mm sheets. The machine is supplied with a full perimeter enclosure with a light beam guarding system across the loading side

Specification

Axis Travel:	1220 x 2440 x 175mm
Max. Machinable:	1220 x 2440 x 155mm
Max. Feedrate:	200mm/sec (12m/min)
Spindle Motor:	2.2kW (3hp)
Spindle Speed:	12,000 – 24,000rpm
Max. Collet Size:	16mm
Resolution:	0.05mm
Interface:	Hand controller. Data transfer via USB data device or direct cable connection.
Work Holding:	Vacuum bed & phenolic perimeter grid system.
Weight:	1300kg
Dimensions:	1800(W) x 2900(D) x 1600(H)mm
Power Requirements:	415V 32A

Why Choose a RouterCAM?

A RouterCAM is clearly a high power machine for large scale work, but it is still a versatile tool for general workshop duties. A class-set of lower school work can be quickly machined; small individual projects in 2D or 3D can be produced accurately and in detail. Needless to say, a RouterCAM is fully compatible with TechSoft 2D Design V2 for 2D/2.5D work, and Visual Toolpath for 3D work.



What's Included

Accessories

- Fully Interlocked Safety Case (690, 1290); Perimeter Enclosure (1224)
- Vacuum Table compressor
- Extraction attachment
- Machine tools and a selection of cutters/collets

Commissioning & Training

The cost of the RouterCAM also includes commissioning and training on the same day.

Warranty

UK Mainland & Ireland:	1 Year On-Site
Elsewhere:	1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

MP-RC-690	RouterCAM 690 Package Includes Machine, Visual Toolpath software, fully interlocked safety case, vacuum bed with vacuum pump, extraction attachment, commissioning and training	15,800.00
MP-RC-1290	RouterCAM 1290 Package Includes Machine, Visual Toolpath software, fully interlocked safety case, vacuum bed with vacuum pump, extraction attachment, commissioning and training	20,750.00
MP-RC-1224	RouterCAM 1224 Package Includes Machine, Visual Toolpath software, fully interlocked perimeter enclosure, vacuum bed with vacuum pump, extraction attachment, commissioning and training	31,200.00

Recommended Extras

MM-EXTRACTION23	For 690 & 1290: TechSoft/Numatic Workshop Extractor. See page 182.	*415.00
MM-EXTRACTION80	For 1224: ESTA Dustomat 10 Extractor (1 phase). See page 182.	*1,985.00

Recommended Tooling

For details of these packs and our full range of tools see pages 79-80

TP-COLL-RC2	Collet Pack (Additional Router Collets) Save £3	75.00
TP2-ROUT-RC	Router Tool Pack (Router tools) Save £5	197.00
TP-PLAS-RC	Plastics Tool Pack (Plastics tools) Save £5	111.00
TP-3D-RC	3D Tool Pack (3D tools) Save £5	94.00

Recommended Software

2D Design V2 (page 12); SolidWorks (page 18)

* N.B. Extraction only required if cutting fine dust materials e.g., foam, MDF, etc.

CNC Milling

Sieg CNC Mill

Affordable CNC Metal-Milling Capability

Ideal for Engineering Training

These two machines offer the capacity to machine free-cutting steel and non-ferrous alloys with great accuracy from files generated in TechSoft 2D Design V2. These are entry level machines but both feature sufficient spindle and axis power for impressive performance. The machines are supplied with a coolant system, tooling and an Training Pack to enable you to get started straight away.

Easy Set-up and Control

Our Sieg CNC Milling packages are supplied with a software extension for 2D Design V2 that allows designs to be created and fully set-up for output using the familiar TechSoft dialog boxes. The output file created contains all the geometry, feed and speed information required so is ready to output directly via the machine's own Sieg CNC Milling control software. As a minimum, this software is used to set machine datums and to 'Dry Run' (or simulate) the output. Engineering students can take advantage of the many additional features such as full G&M code part program listing, creation and editing facilities. A robust, interlocked case ensures safety at all times.



The Sieg CNC Miller is **DIRECTLY CONTROLLED** by 2D Design V2 with CNC Mill Extension



Specifications

Machine:	KX15	KX35
Axis Travel:	260 x 110 x 180mm	295 x 150 x 275mm
Table Size:	400 x 145mm	470 x 160mm
Spindle Speed:	100-7000rpm (variable)	100-3500rpm (variable)
Motor:	0.5kW (0.7hp)	1kW (1.4hp)
Interface:	Ethernet (<i>direct connection</i>)	Ethernet (<i>direct connection</i>)
Weight:	178kg	510kg
Dimensions (mm):	1040(W) x 860(D) x 940(H)	1280(W) x 895(D) x 1845(H)
Power Requirements:	240V 0.7kW, 13A Socket	240V 1kW, 13A Socket
Other Requirements:	Computer with Ethernet	Computer with Ethernet

What's Included

Software

Sieg CNC Milling software
CNC Mill Extension for 2D Design V2.
N.B. 2D Design V2, see page 12, is not included but is required to run this Extension

Free Education Training Pack

Containing a Machine Guide/Tutorial booklet, a CD with project samples and four blocks of modelling board to carry out the tutorial exercises.

Accessories

Coolant System
Tooling Pack (*Includes Swivel Base Machine Vice; Collet Set with 6 collets, set of 10 End Mills and 10 Slot Drills, Keyless Drill Chuck and Arbor*)

Warranty

UK Mainland: 1 Year On-Site
Elsewhere: 1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

MP-CM-51TS	Sieg CNC Mill KX15 Package <i>Includes machine, software extension for 2D Design V2, coolant system and comprehensive tooling pack</i>	6,495.00
MP-CM-53TS	Sieg CNC Mill KX35 Package <i>Includes machine with integral stand, software extension for 2D Design V2, coolant system and comprehensive tooling pack</i>	9,305.00

Recommended Extras

See details of our full range of tools and accessories on page 81

MT-CM-HC51	Hand Control Wheel	410.00
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Recommended Software

2D Design V2 (page 12)



The Sieg CNC Lathe is **DIRECTLY CONTROLLED** by 2D Design V2 with CNC Lathe Extension

CNC Turning for Steel and Non-Ferrous Metals

Robust and Precise for Engineering Training

The Sieg KC6S is a high quality machine built around precision-ground iron castings. In use, the machine is virtually vibration free. The machine has sufficient power for sensible machining times in an educational setting. A robust, interlocked, case means coolant and swarf are contained and moving parts are guarded.

Simple Part Design - Comprehensive Output Control

Our Sieg CNC Lathe package provides a software extension for 2D Design V2 that makes designing suitable components very straightforward. Profile lines in the drawing are colour coded according to the operation required. Up to six operations can be selected including roughing, parting-off, threading, etc., each operation being assigned one of the tools in the automatic 4-position toolpost. On 'CNC Output' a file is created that contains all the necessary G&M code data for geometry, tool type, feeds and speeds, etc. The file is then opened in the Sieg CNC Turning software and a full G-code listing is displayed. This can be edited if required or specialist users could even programme from scratch here. As a minimum, the Sieg software is used to manually control the machine and to set up tools, apply off-sets and to establish machine datums.

Clearly the Best Option

Designing parts and outputting to a CNC lathe can be tricky. TechSoft 2D Design V2 and the Sieg KC6S make the job crystal clear at all stages.



Specifications

Distance Between Centres:	450mm
Swing Over Bed:	250mm
Spindle Speed:	100-3,000rpm (variable)
Motor:	1kW (1.3hp)
Interface:	Ethernet - Direct Connection Advised
Weight:	440kg
Dimensions:	1460(W) x 760(D) x 1450(H)mm
Power Requirements:	240V 1.5kW, 13A Socket
Any Other Requirements:	Computer with an Ethernet Connection

What's Included

Software

Sieg CNC Turning software
CNC Lathe Extension for 2D Design V2.
N.B. 2D Design V2, see page 12, is not included but is required to run this Extension

Free Education Training Pack

Containing a Machine Guide/Tutorial booklet, a CD with project samples and four aluminium billets to carry out the tutorial exercises.

Accessories

Coolant System
Tooling Pack (Includes Live Centre; Keyless Drill Chuck and Arbor; Indexable tools 10mm - 60deg RH, 60deg LH, vee, external threading + blade-type parting tool)

Warranty

UK Mainland: 1 Year On-Site
Elsewhere: 1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

MP-CL-52TS	Sieg CNC Lathe KC6S Package <i>Includes machine with integral stand, software extension for 2D Design V2, coolant system and comprehensive tooling pack</i>	9,085.00
Recommended Extras <i>See details of our full range of tools and accessories on page 81</i>		
MT-CM-HC51	Hand Control Wheel	410.00
Recommended Software 2D Design V2 (page 12)		



**190VMCxi
CNC Milling
Machine**

A versatile bench top machining centre, housed in a single enclosed cabinet, it is ideal for schools and training college and can easily be moved between rooms. With full 2D and 3D Capacity, it is capable of machining mild steel, alloys and synthetic materials to close tolerances. Includes pre-loaded anti-backlash ball screws on all axes, closed loop spindle control, and available with automated accessories and robot interface port for FMS/CIM system integration. Includes on-site training for UK mainland customers.



Specifications

Machine:	190VMCxi
Axis Travel:	225 x 150 x 140mm
Table Size:	410 x 130mm
Max Feedrate:	33mm/sec (2000mm/min)
Spindle Speed:	350-3500rpm
Motor:	450W
Interface:	USB
Weight:	150kg
Dimensions (mm):	890(W) x 610(D) x 600(H) 1280(H) with guard open
Power Requirements:	240V 0.5kW, 13A Socket
Other Requirements:	Computer with USB
Warranty UK Mainland:	1 Year On-Site
Elsewhere:	1 Year Return and Collect



**300VMCxi
CNC Milling
Machine**

Floor standing machining centre with all the features of the 190VMCxi but with a larger machining capacity, plus one shot integrated lubrication system and flood coolant fitted as standard. Also includes integrated lockable storage cupboards and removable laptop shelf. Includes on-site training for UK mainland customers.



Specifications

Machine:	300VMCxi
Axis Travel:	304 x 157 x 213mm
Table Size:	505 x 135mm
Max Feedrate:	83mm/sec (5000mm/min)
Spindle Speed:	200-4000rpm
Motor:	1260W
Interface:	USB
Weight:	500kg
Dimensions (mm):	1955(W) x 820(D) x 1550(H) 2040(H) with guard open
Power Requirements:	240V 1.3kW, 13A Socket
Other Requirements:	Computer with USB
Warranty UK Mainland:	1 Year On-Site
Elsewhere:	1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

MM-CNCMILL2	Boxford 190VMCxi CNC Milling Machine Supplied with Boxford software, vice, set of 6 toolholders, comprehensive set of tooling and additional 3D tooling	13,812.00
Recommended Extras		
MM-CNCMILL2G	Cabinet base for MM-CNCMILL2 with braked castors, shelf & locking doors	662.00
MM-CNCMILL2H	Laptop shelf for cabinet base	59.00
Optional Extras		
MM-CNCMILL2F	Air-mist coolant for MM-CNCMILL2 (compressed air required)	398.00
MM-COMPRESSOR3A	Bambi BB24V Compressor (0.5hp, 50 litres/min, receiver 24 litres, oil lubricated)	420.00
MM-CNCMILL2J	Automatic 6-position toolchanger (needs compressed air and automation machine controller upgrade)	2,425.00
MM-CNCMILL2K	Automation machine controller upgrade for MM-CNCMILL2	536.00
Recommended Design Software		
*2D Design V2 (page 12); SolidWorks (page 18)		

Prices £*

*See Pricing Information on page 2

MM-CNCMILL3	Boxford 300VMCxi CNC Milling Machine Supplied with Boxford software, vice, set of 6 toolholders, comprehensive set of tooling and additional 3D tooling	20,198.00
Optional Extras		
MM-CNCMILL3G	Automatic 8-position toolchanger (needs compressed air and automation machine controller upgrade)	2,503.00
MM-COMPRESSOR3A	Bambi BB24V Compressor (0.5hp, 50 litres/min, receiver 24 litres, oil lubricated)	420.00
MM-CNCMILL3H	Automation machine controller upgrade for MM-CNCMILL3	536.00
MM-CNCMILL3F	Set of 2 toolholders (in addition to the supplied 6) to fully populate 8-position ATC	218.00
Recommended Design Software		
*2D Design V2 (page 12); SolidWorks (page 18)		

* Each machine is supplied with a single copy of the Boxford CAD/CAM software which contains Mill Design (a cut-down version of 2D Design). 2D Design files will load directly into this. Alternatively, a Boxford Extension for 2D Design V2 can be purchased at a cost of £150+VAT to allow seamless integration via File > CNC Output.



**160TCLi
CNC Lathe
Machine**

A versatile lathe, housed in a single enclosed cabinet, it is ideal for schools and training colleges and can easily be moved between rooms. Includes 160mm swing over bed, precision dovetail slide construction, preloaded anti-backlash ball screws and spindle bored to pass 20mm diameter. Also includes 80mm diameter precision three jaw self-centering chuck. Includes on-site training for UK mainland customers.



Specifications

Machine:	160TCLi
Distance Between Centres:	140mm
Swing Over Bed:	160mm
Swing Over X Axes Slide:	70mm
X Axis Travel:	125mm
Z Axis Travel:	125mm
Max Feedrate:	25mm/sec (1500mm/min)
Spindle Speed:	200-3200rpm (variable)
Motor:	490W
Interface:	USB
Weight:	130kg
Dimensions (mm):	800(W) x 600(D) x 675(H) 1025(H) with guard open
Power Requirements:	240V 0.5kW, 13A Socket
Other Requirements:	Computer with USB
Warranty UK Mainland:	1 Year On-Site
Elsewhere:	1 Year Return and Collect



**250PCi
CNC Lathe
Machine**

This floor standing lathe includes a 250mm swing over bed, spindle bored to pass 35mm and 125mm diameter precision three jaw self-centering chuck. Also has precision dovetail slide construction, preloaded anti-backlash ball screws, integrated lockable storage cupboards and removable laptop shelf. One shot lubrication system and flood coolant are fitted as standard. Includes on-site training for UK mainland customers.



Specifications

Machine:	250PCi
Distance Between Centres:	350mm
Swing Over Bed:	250mm
Swing Over X Axes Slide:	105mm
X Axis Travel:	200mm
Z Axis Travel:	265mm
Max Feedrate:	33mm/sec (2000mm/min)
Spindle Speed:	200-3200rpm (variable)
Motor:	2.2kW
Interface:	USB
Weight:	560kg
Dimensions (mm):	2000(W) x 870(D) x 1520(H)
Power Requirements:	240V 2.2kW, 13A Socket
Other Requirements:	Computer with USB
Warranty UK Mainland:	1 Year On-Site
Elsewhere:	1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

MM-CNCLATHE1	Boxford 160TCLi CNC Lathe Supplied with Boxford software, 80mm 3-jaw self centering chuck, 8-station indexing turret & comprehensive set of tooling	12,182.00
Recommended Extras		
MM-CNCLATHE1G	Cabinet base for MM-CNCLATHE1 with braked castors, shelf & locking doors	662.00
MM-CNCLATHE1H	Laptop shelf for cabinet base	59.00
Optional Extras		
MM-CNCLATHE1E	Tailstock for MM-CNCLATHE1	583.00
MM-CNCLATHE1F	Air-mist coolant for MM-CNCLATHE1 (compressed air required)	398.00
MM-COMPRESSOR3A	Bambi BB24V Compressor (0.5hp, 50 litres/min, receiver 24 litres, oil lubricated)	420.00
Recommended Design Software 2D Design V2 (page 12); SolidWorks (page 18)		

Prices £*

*See Pricing Information on page 2

MM-CNCLATHE3	Boxford 250PCi CNC Lathe Supplied with Boxford software, 125mm 3-jaw self-centering chuck, 8-station indexing turret and comprehensive set of tooling	21,323.00
Optional Extras		
MM-CNCLATHE3E	Tailstock for MM-CNCLATHE3	1,273.00
Recommended Design Software 2D Design V2 (page 12); SolidWorks (page 18)		

CNC Milling and Turning

Boxford Combined CNC Lathes and Mills



**DUETi
Combined CNC
Lathe & Mill**

A versatile entry level combination lathe and vertical machining centre, housed in a single enclosed cabinet. This model is ideal for schools and training colleges and can easily be moved between rooms. Suitable for machining wax, plastics and other synthetic materials, it can be converted from lathe to mill in less than a minute and has full 2D and 3D capability. It includes slant bed configuration in lathe mode, 10 position automatic lathe tool changer, preloaded anti-backlash ball screws, 80mm diameter precision three jaw self-centering chuck and quick change vice for mill work holding. Includes on-site training for UK mainland customers.

Specifications

Machine:	DUETi
Lathe Mode	
Distance Between Centres:	330mm
Swing Over Bed:	225mm
X Axis Travel:	125mm
Z Axis Travel:	360mm
Mill Mode	
Axis Travel:	125 x 75 x 260mm
Table Size:	180 x 110mm
General	
Max Feedrate:	16mm/sec (1000mm/min)
Spindle Speed:	200-3500rpm (variable)
Motor:	380W
Interface:	USB
Weight:	80kg
Dimensions (mm):	890(W) x 480(D) x 590(H) 960(H) with guard open
Power Requirements:	240V 0.4kW, 13A Socket
Other Requirements:	Computer with USB
Warranty UK Mainland:	1 Year On-Site
Elsewhere:	1 Year Return and Collect



**MT2i
Combined CNC
Lathe & Mill**

All the features of the DUETi, this floor standing combination lathe and vertical machining centre has stronger, precision components suitable for machining mild steel, alloys and synthetic material to close tolerances. It has a generous 400mm between centres, with optional tailstock steady, precision ground linear slides and preloaded anti-backlash ball screws on all axes and a 100mm diameter self-centering chuck. Integrated lockable storage cupboards and removable laptop shelf also fitted as standard. Includes on-site training for UK mainland customers.

Specifications

Machine:	MT2i
Lathe Mode	
Distance Between Centres:	400mm
Swing Over Bed:	210mm
X Axis Travel:	150mm
Z Axis Travel:	350mm
Mill Mode	
Axis Travel:	150 x 110 x 320mm
Table Size:	180 x 110mm
General	
Max Feedrate:	25mm/sec (1500mm/min)
Spindle Speed:	200-4000rpm (variable)
Motor:	2.2kW
Interface:	USB
Weight:	310kg
Dimensions (mm):	1500(W) x 720(D) x 1530(H)
Power Requirements:	240V 2.2kW, 13A Socket
Other Requirements:	Computer with USB
Warranty UK Mainland:	1 Year On-Site
Elsewhere:	1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

MM-CNCCOMB1	Boxford DUETi Combined CNC Lathe and Mill <i>Supplied with Boxford software, 80mm and 100mm 3-jaw self centering chuck, vice, external automatic and internal quick-change toolchangers, turning, parting & basic milling cutters</i>	8,550.00
Recommended Extras		
MM-CNCCOMB1F	Cabinet base for MM-CNCCOMB1 with braked castors, shelf and locking doors	662.00
MM-CNCCOMB1G	Laptop shelf for cabinet base	59.00
Optional Extras		
MM-CNCCOMB1B	Comprehensive Set of Lathe Tooling for MM-CNCCOMB1	759.00
MM-CNCCOMB1C	Comprehensive Set of Mill Tooling and Holders for MM-CNCCOMB1	173.00
MM-CNCCOMB1D	Additional 3D Tooling for MM-CNCCOMB1	111.00
MM-CNCCOMB1E	Tailstock for MM-CNCCOMB1	162.00

Recommended Design Software

*2D Design V2 (page 12); SolidWorks (page 18)

Prices £*

*See Pricing Information on page 2

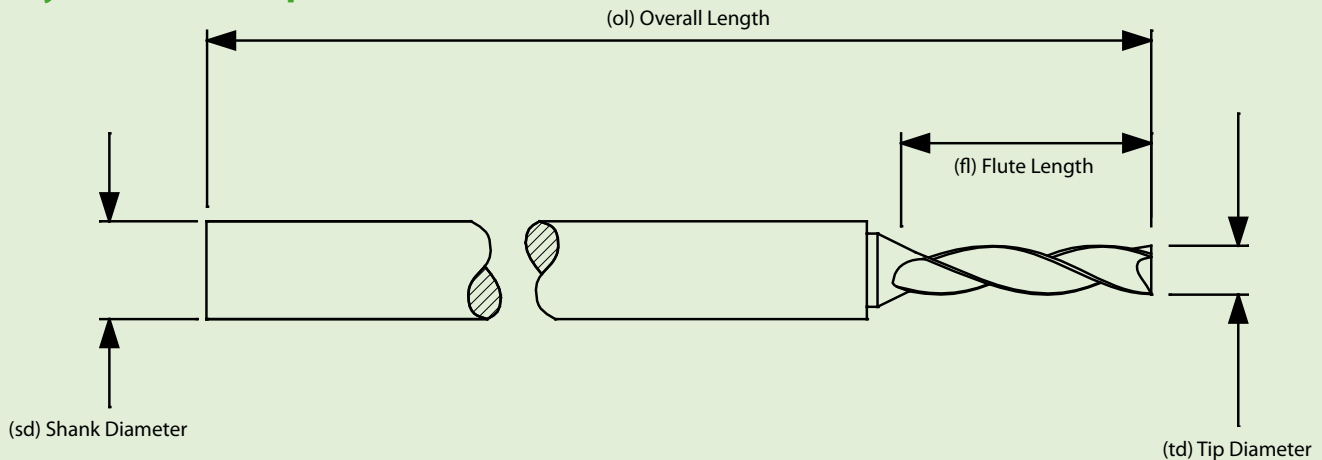
MM-CNCCOMB2	Boxford MT2i Combined CNC Lathe and Mill <i>Supplied with Boxford software, 100mm 3-jaw self-centering chuck, vice, basic milling cutters, 8 station indexing turret and comprehensive set of tooling to fully populate indexing turret. (Machine is cabinet mounted.)</i>	17,787.00
Optional Extras		
MM-CNCCOMB2D	Comprehensive set of mill tooling and holders for MM-CNCCOMB2	438.00
MM-CNCCOMB2E	Additional 3D Tooling for MM-CNCCOMB2	111.00
MM-CNCCOMB2F	Tailstock for MM-CNCCOMB2	1,159.00
MM-CNCCOMB2G	Flood Coolant for MM-CNCCOMB2	537.00

Recommended Design Software

*2D Design V2 (page 12); SolidWorks (page 18)

* Each machine is supplied with a single copy of the Boxford CAD/CAM software which contains Mill Design (a cut-down version of 2D Design). 2D Design files will load directly into this. Alternatively, a Boxford Extension for 2D Design V2 can be purchased at a cost of £150+VAT to allow seamless integration via File > CNC Output.

Key to tool descriptions



iM-01

Accessories, Sacrificial Beds and Consumables

TechSoft exclusively supply the iModela with a 3mm diameter spindle and offer a range of suitable 3mm shank tooling. Once fitted and datumed, a locating ring can be fitted to a tool, to allow it to be easily removed and replaced without the need for re-datuming. As well as providing a level work surface (once skimmed flat), 5mm sacrificial beds can be used where necessary to 'build up' the bed, thus reducing the need for excessive tool overhang (stickout).

TA-M3-LOCRING	Pack of 3 Locating rings to fit 3mm tools	25.00
TA-HEXTOL15	1.5mm Hex Tool for spindle grub screws	2.60
RLP-IMOD-025	Replacement 3mm Spindle for iModela	29.95
RLP-IMOD-001	Pack of 2 Spindle Motors (with pinion gear)	7.00
TA-IMOD1-BED	White Styrene Sacrificial Bed, 86 x 55 x 5mm	1.50

Tool Packs

TP-MIX-IMOD1	Mixed Tool Pack (General set of tools) (Save £5) (TA-ECTIL-40, TA-SDEA-2, TA-BNE-3)	57.50
TP-PCB-IMOD1	PCB Tool Pack (Specialist PCB tools) (Save £5) (TA-ECTIL-40, TA-SDEA-2, TA-PD31-0.8, TA-PD31-1)	61.50

Engraving Tools

General purpose carbide tipped vee point engraving tools, ground to an included angle of 40 deg or 90 deg. The 40 deg tool is suitable for engraving most materials, and recommended as a standard tool for all users. The 90 deg tool is designed for making vee grooves in materials such as 2mm styrene.

TA-ECTIL-40	40°, 3mm (sd), 50mm (ol)	18.50
TA-ECTIL-90	90°, 3mm (sd) x 50mm (ol)	18.50
TA-ECT-REPLACE	Replacement re-sharpened engraving tool (N.B. Tool must be returned to TechSoft)	6.00

Slot Drills

General purpose milling/drilling slot drills in solid carbide. These tools (particularly in sizes 2mm and above) are specially designed to produce a good surface finish on plastic materials such as styrene and acrylic.

TA-SDEA-1	1mm (td), 2mm (fl), 3mm (sd), 38mm (ol)	21.00
TA-SDEA-1.5	1.5mm (td), 2mm (fl), 3mm (sd), 38mm (ol)	22.00
TA-SDEA-2	2mm (td), 6mm (fl), 3mm (sd), 38mm (ol)	22.00
TA-SDEA-3	3mm (td), 12mm (fl), 3mm (sd), 48mm (ol)	25.00

Long Reach Modelling Slot Drills

A long reach carbide slot drill. Ideal for deep 3D machining

TA-SDE-3	3mm (td), 20mm (fl), 3mm (sd), 55mm (ol)	21.00
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Ball Nosed Cutters

A general purpose round ended cutter in carbide. Ideal for 3D modelling, particularly in modelling wax or foam.

TA-BNEA-2	2mm (td), 6mm (fl), 3mm (sd), 38mm (ol)	13.00
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Long Reach Ball Nosed Modelling Cutters

A long reach carbide ball nosed cutter. Ideal for very deep machining, particularly when profiling in 3D.

TA-BNE-3	3mm (td), 20mm (fl), 3mm (sd), 55mm (ol)	22.00
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Printed Circuit Board Drills

A range of specialist PCB drills in solid tungsten carbide.

TA-PD31-0.8	0.8mm (td), 10mm (fl), 3mm (sd), 40mm (ol)	13.00
TA-PD31-1	1mm (td), 10mm (fl), 3mm (sd), 40mm (ol)	13.00
TA-PD31-1.2	1.2mm (td), 10mm (fl), 3mm (sd), 40mm (ol)	13.00
TA-PD31-1.5	1.5mm (td), 10mm (fl), 3mm (sd), 40mm (ol)	13.00

Milling / Routing / Engraving - Tools

SRM-20E



SRM-20E

Collets & Sacrificial Beds

The SRM-20 is supplied with a 6mm Roland collet. However, for most general operations TechSoft recommend the use of 4.36mm (1/8 inch) extended shank tools. These are simply inserted into the Roland collet using a TechSoft tool adaptor. Tools can then be lowered onto the work surface, thus datuming the tool automatically. Adaptors can remain on the tool to allow them to be easily removed and replaced without the need for re-datuming. Two 4.36mm adaptors are supplied by TechSoft with the machine and adaptors are also available to fit 3.17mm (1/8 inch) tools, such as standard PCB drills. For deep 3D machining, the 6mm Roland collet allows the use of any of the Extended Long Reach Modelling tools listed below.


6mm replacement Roland collets are available, as well as various other sizes which may be useful for special applications.

RLP-SRM20-COLL3	3mm Roland Collet	41.95
RLP-SRM20-COLL31	3.175mm Roland Collet	41.95
RLP-SRM20-COLL4	4mm Roland Collet	41.95
RLP-SRM20-COLL6	Replacement 6mm Roland collet	41.95
TA-ADAPT-M3	Adaptors for 3.17mm tools (pk 3). <i>(For use with 6mm collet, also act as depth stops)</i>	26.95
TA-ADAPT-M4	Replacement Adaptors for 4.36mm tools (pk 3). <i>(For use with 6mm collet, also acts as depth stop)</i>	26.95
TA-HEXTOOL20	2mm Hex Tool for collet / Tool adaptor	2.95
TC-SRM20-BED	White Styrene Sacrificial Bed for SRM-20	5.50

Tool Packs

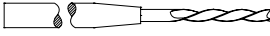
TP-MIX-SRM20E	Mixed Tool Pack (General set of tools) <i>(Save £5)</i> <i>(TA-ADAPT-M4, TA-ECT4MP-40, TA-SD4MP-2, TA-SD4MP-4, TA-BN4MP-2)</i>	124.00
TP-3D-40E	3D Tool Pack (Specialist 3D tools) <i>(Save £7)</i> <i>(TA-SD6LR-2, TA-SD6LR-4, TA-BN6LR-2, TA-BN6LR-4)</i>	101.00
TP-PCB-SRM-20E	PCB Tool Pack (Specialist PCB tools) <i>(Save £5)</i> <i>(TA-ADAPT-M3, TA-ADAPT-M4, TA-ECT4MP-40, TA-SD4MP-2, TA-PD3M-0.8, TA-PD3M-1)</i>	114.00

Ball Nosed Cutters

General purpose round ended cutters in carbide. They are ideal for 3D modelling, particularly in modelling wax or foam. 

TA-BN4MP-2	2mm (td), 6mm (fl), 4.36mm (sd), 65mm (ol)	25.00
TA-BN4MP-3	3mm (td), 7mm (fl), 4.36mm (sd), 70mm (ol)	23.00
TA-BN4MP-4	4mm (td), 7mm (fl), 4.36mm (sd), 70mm (ol)	41.00


Extended Long Reach Ball Nosed Modelling Cutters

A range of long reach carbide ball nosed cutters mounted in an extended shank for ease of use. Ideal for very deep machining, particularly when profiling in 3D. 

TA-BN6LR-2	2mm (td), 6mm (fl), 6mm (sd), 75mm (ol)	24.00
TA-BN6LR-3	3mm (td), 20mm (fl), 6mm (sd), 90mm (ol)	24.00
TA-BN6LR-4	4mm (td), 20mm (fl), 6mm (sd), 90mm (ol)	26.00

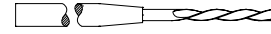
N.B. All tool lengths are nominal - see key page 75

Slot Drills

General purpose milling/drilling slot drills in solid carbide. These tools (particularly in sizes 2mm and above) are specially designed to produce a good surface finish on plastic materials such as styrene and acrylic. 

TA-SD4MP-0.5	0.5mm (td), 3mm (fl), 4.36mm (sd), 60mm (ol)	49.00
TA-SD4MP-0.8	0.8 (td), 4mm (fl), 4.36mm (sd), 60mm (ol)	21.00
TA-SD4MP-1	1mm (td), 5mm (fl), 4.36mm (sd), 60mm (ol)	21.00
TA-SD4MP-1.5	1.5mm (td), 5mm (fl), 4.36mm (sd), 60mm (ol)	21.00
TA-SD4MP-2	2mm (td), 6mm (fl), 4.36mm (sd), 60mm (ol)	21.00
TA-SD4MP-2.5	2.5mm (td), 8mm (fl), 4.36mm (sd), 60mm (ol)	21.00
TA-SD4MP-3	3mm (td), 12mm (fl), 4.36mm (sd), 70mm (ol)	21.00
TA-SD4MP-4	4mm (td), 15mm (fl), 4.36mm (sd), 85mm (ol)	37.00


Extended Long Reach Modelling Slot Drills

A range of long reach carbide slot drills mounted in an extended shank for ease of use. Ideal for very deep machining, particularly when profiling in 3D. 

TA-SD6LR-2	2mm (td), 8mm (fl), 6mm (sd), 75mm (ol)	29.00
TA-SD6LR-3	3mm (td), 20mm (fl), 6mm (sd), 90mm (ol)	29.00
TA-SD6LR-4	4mm (td), 25mm (fl), 6mm (sd), 90mm (ol)	34.00


Engraving Tools

40 deg

General purpose carbide tipped vee point engraving tools, ground to an included angle of 40 deg. Suitable for engraving most materials, and recommended as a standard tool for all users. 


TA-ECT4MP-40	40°, 0.3mm (td), 4.36mm (sd), 65mm (ol)	19.50
TA-ECT-REPLACE	Replacement re-sharpened engraving tool <i>(N.B. TA-ECT4MP-40 tool must be returned to TechSoft)</i>	6.00

90 deg

Solid carbide vee point slot drill with an included angle of 90 degrees. This tool is ideal for VCarving, PhotoVCarving and cutting 45 degree chamfers. 

TA-VC6-90	90°, 5mm (td), 12mm (fl), 6mm (sd), 50mm (ol)	37.50
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Printed Circuit Board Drills

A range of solid carbide PCB drills. These must be used in conjunction with the 3.17mm tool adaptor (TA-ADAPT-M3, see above). 

TA-PD3M-0.8	Pack of 5 Drills: 0.8mm (td), 10mm (fl), 3.17mm (sd), 38mm (ol)	13.00
TA-PD3M-1	Pack of 5 Drills: 1mm (td), 10mm (fl), 3.17mm (sd), 38mm (ol)	13.00
TA-PD3M-1.2	Pack of 5 Drills: 1.2mm (td), 10mm (fl), 3.17mm (sd), 38mm (ol)	13.00
TA-PD3M-1.5	Pack of 5 Drills: 1.5mm (td), 10mm (fl), 3.17mm (sd), 38mm (ol)	13.00



MDX-40AE



MDX-40E

N.B. All tool lengths are nominal - see key page 75

Accessories

RL-ROTO-TS30SCAN	Optional Scanning Head for RotoCamm MDX-40AE/MDX-40E/TS-30E	295.00
RL-ROTO-ROTARY40A	Optional Rotary 4th Axis for RotoCamm MDX-40AE	1,995.00
RL-ROTO-ROTARY	Optional Rotary 4th Axis for RotoCamm MDX-40E	2,795.00

Collets & Sacrificial Beds

The MDX-40AE is supplied with a standard Roland 6mm dia collet. Using just this collet limits the choice of possible tools, and also makes setting up more awkward. For most general operations TechSoft recommend the use of 4.36mm (11/64 inch) extended shank tools. These are simply lowered through the machine spindle to touch onto the work surface, thus datuming the tool automatically. These tools should also be fitted with an additional top collet (TA-UC-1164) to allow them to be easily removed and replaced without the need for re-datuming. To make use of this system a tool adaptor is required (one is supplied by Techsoft with the machine). The adaptor (TA-ADAPT-M4) can remain fitted to the machine inside the standard Roland collet.

Some special tools (such as the long reach ball nosed cutters) have a 6mm shank. These may be used directly in the standard Roland collet.

TA-ADAPT1-M4	Adaptor for 4.36mm tools (replacement)	9.50
TA-UC-1164	Upper collets for 4.36mm tools (pk of 3)	23.00
TA-HEXT00L20	2mm Hex Tool for adaptor adjustment	2.95
RP112	6mm Roland Collet (replacement)	36.95
TC-TS30-BED	White Styrene Sacrificial Bed for MDX-40E/MDX-40AE	15.95

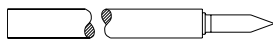
Tool Packs

TP-MIX-40E	Mixed Tool Pack (General set of tools) <i>(Save £5)</i> (TA-UC-1164, TA-ECT4-40, TA-SD4-2, TA-SD4-4, TA-BN4-2)	119.00
TP-3D-40E	3D Tool Pack (Specialist 3D tools) <i>(Save £7)</i> (TA-SD6LR-2, TA-SD6LR-4, TA-BN6LR-2, TA-BN6LR-4)	101.00
TP-PCB-40E	PCB Tool Pack (Specialist PCB tools) <i>(Save £5)</i> (TA-UC-1164, TA-ECT4-40, TA-SD4-2, TA-PD4-0.8, TA-PD4-1)	85.00

Engraving Tools

40 deg

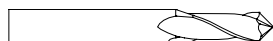
General purpose carbide tipped vee point engraving tools, ground to an included angle of 40 deg. Suitable for engraving most materials, and recommended as a standard tool for all users.



TA-ECT4-40	40°, 4.36mm (sd), 165mm (ol)	19.50
TA-ECT-REPLACE	Replacement re-sharpened engraving tool <i>(N.B. TA-ECT4-40 tool must be returned to TechSoft)</i>	6.00

90 deg

Solid carbide vee point slot drill with an included angle of 90 degrees. This tool is ideal for VCarving, PhotoVCarving and cutting 45 degree chamfers.



TA-VC6-90	90°, 5mm (td), 12mm (fl), 6mm (sd), 50mm (ol)	37.50
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Slot Drills

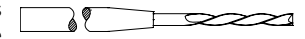
General purpose milling/drilling slot drills in solid carbide. These tools (particularly in sizes 2mm and above) are specially designed to produce a good surface finish on plastic materials such as styrene and acrylic.



TA-SD4-0.5	0.5mm (td), 3mm (fl), 4.36mm (sd), 140mm (ol)	49.00
TA-SD4-0.8	0.8mm (td), 4mm (fl), 4.36mm (sd), 140mm (ol)	22.00
TA-SD4-1	1mm (td), 5mm (fl), 4.36mm (sd), 140mm (ol)	21.00
TA-SD4-1.5	1.5mm (td), 5mm (fl), 4.36mm (sd), 140mm (ol)	21.00
TA-SD4-2	2mm (td), 6mm (fl), 4.36mm (sd), 140mm (ol)	22.00
TA-SD4-2.5	2.5mm (td), 8mm (fl), 4.36mm (sd), 140mm (ol)	23.00
TA-SD4-3	3mm (td), 12mm (fl), 4.36mm (sd), 150mm (ol)	23.00
TA-SD4-4	4mm (td), 15mm (fl), 4.36mm (sd), 160mm (ol)	34.00

Extended Long Reach Modelling Slot Drills

A range of long reach carbide slot drills mounted in an extended shank for ease of use. Ideal for very deep machining, particularly when profiling in 3D.



TA-SD6LR-2	2mm (td), 8mm (fl), 6mm (sd), 75mm (ol)	29.00
TA-SD6LR-3	3mm (td), 20mm (fl), 6mm (sd), 90mm (ol)	29.00
TA-SD6LR-4	4mm (td), 25mm (fl), 6mm (sd), 90mm (ol)	34.00

Ball Nosed Cutters

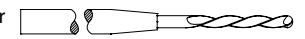
General purpose round ended cutters in carbide. They are ideal for 3D modelling, particularly in modelling wax or foam.



TA-BN4-2	2mm (td), 6mm (fl), 4.36mm (sd), 145mm (ol)	26.00
TA-BN4-3	3mm (td), 7mm (fl), 4.36mm (sd), 145mm (ol)	22.00
TA-BN4-4	4mm (td), 7mm (fl), 4.36mm (sd), 160mm (ol)	39.00

Extended Long Reach Ball Nosed Modelling Cutters

A range of long reach carbide ball nosed cutters mounted in an extended shank for ease of use. Ideal for very deep machining, particularly when profiling in 3D.



TA-BN6LR-2	2mm (td), 6mm (fl), 6mm (sd), 75mm (ol)	24.00
TA-BN6LR-3	3mm (td), 20mm (fl), 6mm (sd), 90mm (ol)	24.00
TA-BN6LR-4	4mm (td), 20mm (fl), 6mm (sd), 90mm (ol)	26.00

Printed Circuit Board Drills

A range of specialist PCB drills in tungsten carbide.



PCB Drill:

TA-PD4-0.8	0.8mm (td), 10mm (fl), 4.36mm (sd), 145mm (ol)	13.00
TA-PD4-1	1mm (td), 10mm (fl), 4.36mm (sd), 140mm (ol)	13.00
TA-PD4-1.2	1.2mm (td), 10mm (fl), 4.36mm (sd), 140mm (ol)	13.00
TA-PD4-1.5	1.5mm (td), 10mm (fl), 4.36mm (sd), 140mm (ol)	13.00

Milling / Routing / Engraving - Tools

Modela Pro II MDX-540E

(N.B. For MDX-500E/650 tools see website)

Collets & Sacrificial Beds

This machine is supplied with a 6-7mm collet as standard. However, for most general operations TechSoft recommend the use of 4.36mm (11/64 inch) extended shank tools. These are simply inserted into the machine spindle using a TechSoft tool adaptor.



MDX-540E

Tools can then be lowered onto the work surface, thus datuming the tool automatically. A locating ring can remain on the tool to allow it to be easily removed and replaced without the need for re-datuming. A 4.36mm adaptor and two locating rings are supplied by TechSoft with the machine.

Alternatively the 6-7mm collet allows the use of standard 6mm shank engineering tools and 1/4 inch woodworking router cutters. Additional collets (TA-COLLET-D34 and TA-COLLET-D45) allow the use of any of the Long Reach or High Hook tools listed below.

TA-COLLET-D67	6-7mm collet (replacement)	19.00
TA-COLLET-D56	5-6mm collet	19.00
TA-COLLET-D45	4-5mm collet	19.00
TA-COLLET-D34	3-4mm collet	19.00
TA-COLLET-D23	2-3mm collet	19.00
TA-ADAPT1-M4	Adaptor for 4.36mm tools (replacement)	9.50
TA-M4-LOCRING	Locating Ring to fit 4.36mm tools (pk 3)	25.00
TA-HEXTOOL20	2mm Hex Tool for ring/adaptor adjustment	2.95
TC-MDX540-BED	White Styrene Sacrificial Bed for MDX-540E	35.00

Tool Packs

TP-MIX-540E	Mixed Tool Pack (General set of tools) (Save £5) (TA-M4-LOCRING, TA-ECT4MP-40, TA-SD4MP-2, TA-SD4MP-4, TA-BN4MP-2)	122.00
TP-3D-540E	3D Tool Pack (Specialist 3D tools) (Save £7) (TA-SD6LR-2, TA-SD6LR-4, TA-BN6LR-2, TA-BN6LR-4)	101.00
TP-PCB-540E	PCB Tool Pack (Specialist PCB tools) (Save £5) (TA-M4-LOCRING, TA-ECT4MP-40, TA-SD4MP-2, TA-PD4MP-0.8, TA-PD4MP-1)	86.00

Ball Nosed Cutters

General purpose round ended cutters in carbide. They are ideal for 3D modelling, particularly in modelling wax or foam.

TA-BN4MP-2	2mm (td), 6mm (fl), 4.36mm (sd), 65mm (ol)	25.00
TA-BN4MP-3	3mm (td), 7mm (fl), 4.36mm (sd), 70mm (ol)	23.00
TA-BN4MP-4	4mm (td), 7mm (fl), 4.36mm (sd), 70mm (ol)	41.00

Long Reach Ball Nosed Modelling Cutters

A range of long reach carbide ball nosed cutters, ideal for deep 3D machining.

TA-BNE-3	3mm (td), 20mm (fl), 3mm (sd), 55mm (ol)	*22.00
TA-BNE-4	4mm (td), 20mm (fl), 4mm (sd), 60mm (ol)	*25.00
TA-BNE-5	5mm (td), 20mm (fl), 5mm (sd), 60mm (ol)	*28.00
TA-BNE-6	6mm (td), 25mm (fl), 6mm (sd), 75mm (ol)	29.00

Extended Long Reach Ball Nosed Modelling Cutters

A range of long reach carbide ball nosed cutters mounted in an extended shank for ease of use. Ideal for very deep machining, particularly when profiling in 3D.

TA-BN6LR-2	2mm (td), 6mm (fl), 6mm (sd), 75mm (ol)	24.00
TA-BN6LR-3	3mm (td), 20mm (fl), 6mm (sd), 90mm (ol)	24.00
TA-BN6LR-4	4mm (td), 20mm (fl), 6mm (sd), 90mm (ol)	26.00

* These tools require collet TA-COLLET-D34, TA-COLLET-D45 or TA-COLLET-D56 as appropriate

Slot Drills

General purpose milling/drilling slot drills in solid carbide. These tools (particularly in sizes 2mm and above) are specially designed to produce a good surface finish on plastic materials such as styrene and acrylic.

TA-SD4MP-0.5	0.5mm (td), 3mm (fl), 4.36mm (sd), 60mm (ol)	49.00
TA-SD4MP-0.8	0.8mm (td), 4mm (fl), 4.36mm (sd), 60mm (ol)	21.00
TA-SD4MP-1	1mm (td), 5mm (fl), 4.36mm (sd), 60mm (ol)	21.00
TA-SD4MP-1.5	1.5mm (td), 5mm (fl), 4.36mm (sd), 60mm (ol)	21.00
TA-SD4MP-2	2mm (td), 6mm (fl), 4.36mm (sd), 60mm (ol)	21.00
TA-SD4MP-2.5	2.5mm (td), 8mm (fl), 4.36mm (sd), 60mm (ol)	21.00
TA-SD4MP-3	3mm (td), 12mm (fl), 4.36mm (sd), 70mm (ol)	21.00
TA-SD4MP-4	4mm (td), 15mm (fl), 4.36mm (sd), 85mm (ol)	37.00

Long Reach Modelling Slot Drills

A range of long reach carbide slot drills. Ideal for deep 3D machining

TA-SDE-3	3mm (td), 20mm (fl), 3mm (sd), 55mm (ol)	*21.00
TA-SDE-4	4mm (td), 25mm (fl), 4mm (sd), 75mm (ol)	*23.00
TA-SDE-5	5mm (td), 25mm (fl), 5mm (sd), 60mm (ol)	*26.00
TA-SDE-6	6mm (td), 25mm (fl), 6mm (sd), 65mm (ol)	34.00

Extended Long Reach Modelling Slot Drills

A range of long reach carbide slot drills mounted in an extended shank for ease of use. Ideal for very deep machining, particularly when profiling in 3D.

TA-SD6LR-2	2mm (td), 8mm (fl), 6mm (sd), 75mm (ol)	29.00
TA-SD6LR-3	3mm (td), 20mm (fl), 6mm (sd), 90mm (ol)	29.00
TA-SD6LR-4	4mm (td), 25mm (fl), 6mm (sd), 90mm (ol)	34.00

High Hook Slot Drills

A range of carbide slot drills with tooth forms specially designed for rapid CNC machining in aluminium and plastics.

TA-SDEA-2	2mm (td), 6mm (fl), 3mm (sd), 38mm (ol)	*22.00
TA-SDEA-3	3mm (td), 12mm (fl), 3mm (sd), 48mm (ol)	*25.00
TA-SDEA-4	4mm (td), 12mm (fl), 4mm (sd), 50mm (ol)	*25.00
TA-SDEA-5	5mm (td), 20mm (fl), 5mm (sd), 50mm (ol)	*31.00
TA-SDEA-6	6mm (td), 20mm (fl), 6mm (sd), 60mm (ol)	36.00

Engraving Tools

40 deg

General purpose carbide tipped vee point engraving tools, ground to an included angle of 40 deg. Suitable for engraving most materials, and recommended as a standard tool for all users.

TA-ECT4MP-40	40°, 0.3mm (td), 4.36mm (sd), 65mm (ol)	19.50
TA-ECT-REPLACE	Replacement re-sharpened engraving tool (N.B. TA-ECT4MP-40 tool must be returned to TechSoft)	6.00

90 deg

Solid carbide vee point slot drill with an included angle of 90 degrees. This tool is ideal for VCarving, PhotoVCarving and cutting 45 degree chamfers.

TA-VC6-90	90°, 5mm (td), 12mm (fl), 6mm (sd), 50mm (ol)	37.50
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Printed Circuit Board Drills

A range of specialist PCB drills in tungsten carbide.

TA-PD4MP-0.8	0.8mm (td), 10mm (fl), 4.36mm (sd), 70mm (ol)	13.00
TA-PD4MP-1	1mm (td), 10mm (fl), 4.36mm (sd), 70mm (ol)	13.00
TA-PD4MP-1.2	1.2mm (td), 10mm (fl), 4.36mm (sd), 70mm (ol)	13.00
TA-PD4MP-1.5	1.5mm (td), 10mm (fl), 4.36mm (sd), 70mm (ol)	13.00

Milling / Routing / Engraving - Tools

EGX-350E/RotoCAMM TS-30E/CAMM 2 EGX-300/400/600 & PNC-2300/A



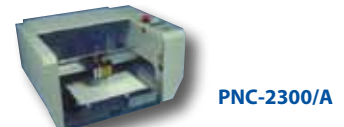
EGX-350E



TS-30E



EGX-300/E



PNC-2300/A

N.B. All tool lengths are nominal - see key page 75

Collets & Sacrificial Beds

TechSoft have developed a system of special multi-purpose tool holding collets. This system utilises a replacement upper and lower collet for use with the larger, more sturdy 4.36mm (11/64 inch) tools which we supply. When using more than one tool, the upper collet (if left on the cutter) acts as a depth stop. This makes setup very quick and simple. (One lower collet and two upper collets are included in the TechSoft Training Pack supplied free with each machine.) Extra collets are available as follows:

TA-LC-TS30	Lower collet (replacement) (TS-30E, EGX-350E)	16.00
TA-LC-1164	Lower collet (replacement) (EGX-300/E, PNC-2300/A)	19.50
TA-UC-1164	Upper collets for 4.36mm tools (pk of 3)	23.00
TA-HEXT00L20	2mm Hex Tool for collet adjustment	2.95
TC-TS30-BED	White Styrene Sacrificial Bed for RotoCAMM TS-30/MDX-40/MDX-40A	15.95
TC-CAMM2-BED	White Styrene Sacrificial Bed for EGX-350, EGX-300, CAMM 2 PNC-2300/A	11.00
TC-EGXACR-BED	Pre-cut, acrylic baseplate for EGX-350 Lower Bed	24.95
TC-EGXMDF-BED	305x230x18mm MDF for EGX-350 Lower Bed	1.95

Engraving Tools

40 deg

40 deg. carbide tipped vee point engraving tools, ground to an included angle of 40 deg. Suitable for engraving most materials, and recommended as a standard tool for all users.

TA-ECT4-40	40°, 4.36mm (sd), 165mm (ol)	19.50
TA-ECT-REPLACE	Replacement re-sharpened engraving tool <i>(N.B. TA-ECT4-40 tool must be returned to TechSoft)</i>	6.00

90 deg

Solid carbide vee point engraving tool ground to an included angle of 90 deg. Designed for making vee grooves in materials such as 2mm styrene. If the groove is machined "almost through" the material may be folded and glued, useful for box manufacture, etc.

TA-EC4-90	90°, 4.36mm (sd), 165mm (ol)	32.00
TA-ECT-REPLACE	Replacement re-sharpened engraving tool <i>(N.B. TA-EC4-90 tool must be returned to TechSoft)</i>	6.00

Printed Circuit Board Drills

A range of specialist PCB drills in tungsten carbide.

TA-PD4-0.8	0.8mm (td), 10mm (fl), 4.36mm (sd), 145mm (ol)	13.00
TA-PD4-1	1mm (td), 10mm (fl), 4.36mm (sd), 140mm (ol)	13.00
TA-PD4-1.2	1.2mm (td), 10mm (fl), 4.36mm (sd), 140mm (ol)	13.00
TA-PD4-1.5	1.5mm (td), 10mm (fl), 4.36mm (sd), 140mm (ol)	13.00

Tool Packs

TP-MIX-350E	Mixed Tool Pack (General set of tools) <i>(Save £5)</i> <i>(TA-UC-1164, TA-ECT4-40, TA-SD4-2, TA-SD4-4, TA-BN4-2)</i>	119.00
TP-PCB-350E	PCB Tool Pack (Specialist PCB tools) <i>(Save £5)</i> <i>(TA-UC-1164, TA-ECT4-40, TA-SD4-2, TA-PD4-0.8, TA-PD4-1)</i>	85.00

Ball Nosed Cutters

General purpose round ended cutters in carbide. They are ideal for 3D modelling, particularly in modelling wax or foam.

TA-BN4-2	2mm (td), 6mm (fl), 4.36mm (sd), 145mm (ol)	26.00
TA-BN4-3	3mm (td), 7mm (fl), 4.36mm (sd), 145mm (ol)	22.00
TA-BN4-4	4mm (td), 7mm (fl), 4.36mm (sd), 160mm (ol)	39.00

Slot Drills

General purpose milling/drilling slot drills in solid carbide. These tools (particularly in sizes 2mm and above) are specially designed to produce a good surface finish on plastic materials such as styrene and acrylic.

TA-SD4-0.5	0.5mm (td), 3mm (fl), 4.36mm (sd), 140mm (ol)	49.00
TA-SD4-0.8	0.8mm (td), 4mm (fl), 4.36mm (sd), 140mm (ol)	22.00
TA-SD4-1	1mm (td), 5mm (fl), 4.36mm (sd), 140mm (ol)	21.00
TA-SD4-1.5	1.5mm (td), 5mm (fl), 4.36mm (sd), 140mm (ol)	21.00
TA-SD4-2	2mm (td), 6mm (fl), 4.36mm (sd), 140mm (ol)	22.00
TA-SD4-2.5	2.5mm (td), 8mm (fl), 4.36mm (sd), 140mm (ol)	23.00
TA-SD4-3	3mm (td), 12mm (fl), 4.36mm (sd), 150mm (ol)	23.00
TA-SD4-4	4mm (td), 15mm (fl), 4.36mm (sd), 160mm (ol)	34.00

Routing Cutters

Half Round

Good general purpose tools for milling/drilling/routing in materials such as plastic and wood. Carbide tipped. The straight flute does not clear swarf very efficiently, thus care must be taken with deeper cuts.

TA-RCT4-50-2	2mm (td), 5mm (fl), 4.36mm (sd), 165mm (ol)	19.50
TA-RCT4-50-3	3mm (td), 8mm (fl), 4.36mm (sd), 165mm (ol)	19.50
TA-RCT4-50-4	4mm (td), 12mm (fl), 4.36mm (sd), 165mm (ol)	31.00

Routing Cutters - Three Quarter Round

Similar to the half round cutters, but slightly more inclined to clogging. However, they are very strong and relatively difficult to break if accidentally overloaded.

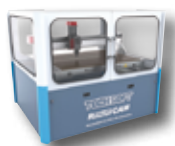
TA-RCT4-75-2	2mm (td), 6mm (fl), 4.36mm (sd), 165mm (ol)	24.00
TA-RCT4-75-3	3mm (td), 10mm (fl), 4.36mm (sd), 165mm (ol)	24.00
TA-RCT4-75-4	4mm (td), 10mm (fl), 4.36mm (sd), 165mm (ol)	34.00

Milling / Routing / Engraving - Tools

RouterCAM



690



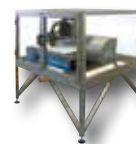
1290



1224



1000/1200/1500



700



1220

N.B. All tool lengths are nominal - see key page 75

Collets

For RouterCAM 690 / 1290 / 1224 / 1000 / 1200 / 1500

The RouterCAM 690, 1290 and 1224 are supplied with a 5-6mm and a 6-7mm collet as standard. The 5-6mm collet allows the use of standard 6mm shank engineering tools, and ¼ inch (6.35mm) woodworking router cutters. The 7-8mm collet allows the use of 8mm router cutters.

Additional collets are available to allow the use of tools with shank sizes from 2mm - 13mm.

TP-COLL-RC2	Collet Pack <i>Additional Router Collets for 690/1290/1224/1000/1200/1500 (Save £3)</i> (TA-RCOLL-D23, TA-RCOLL-D34, TA-RCOLL-D45, TA-RCOLL-D56)	75.00
TA-RCOLL-D23	2-3mm collet	19.50
TA-RCOLL-D34	3-4mm collet	19.50
TA-RCOLL-D45	4-5mm collet	19.50
TA-RCOLL-D56	5-6mm collet (replacement)	19.50
TA-RCOLL-D67	6-7mm collet (replacement)	19.50
TA-RCOLL-D78	7-8mm collet	19.50
TA-RCOLL-D89	8-9mm collet	19.50
TA-RCOLL-D910	9-10mm collet	19.50
TA-RCOLL-D1011	10-11mm collet	19.50
TA-RCOLL-D1112	11-12mm collet	19.50
TA-RCOLL-D1213	12-13mm collet	19.50
TA-SPANCER25	C Spanner, ER25 (replacement)	11.00

For RouterCAM 700 / 1220

RouterCAM 700 / 1220 machines were supplied with a 6mm and ¼" collet as standard. These collets allow the use of standard 6mm shank engineering tools, and ¼ inch woodworking router cutters. Additional collets are available to allow the use of tools with shank sizes from 3mm - 8mm.

TP-COLL-RC1	Collet Pack <i>Additional Router Collets for 700/1220 (Save £3)</i> (TA-RCOLL-D3, TA-RCOLL-D4, TA-RCOLL-D8)	67.00
TA-RCOLL-D3	3mm collet	23.50
TA-RCOLL-D4	4mm collet	23.50
TA-RCOLL-D6	6mm collet (replacement)	23.50
TA-RCOLL-D8	8mm collet	23.50
TA-RCOLL-D1/4	1/4" (6.35mm) collet (replacement) for RouterCAM 700/1220	23.50
TA-SPANC2528	C Spanner, 25-28 (replacement) for RouterCAM 700/1220	19.00

Accessories and Consumables

For RouterCAM 690 / 1290 / 1224

TMP-RC-BED5	Sintered Matting Bed for RouterCAM 690	34.00
TMP-RC-BED3	Sintered Matting Bed for RouterCAM 1290	59.00
TMP-RC-BED4	Sintered Matting Bed for RouterCAM 1224	173.00
TMP-RC-SC6-5	5m Sponge Cord (6mm dia.) for Vac Grid	8.50
TMP-RC-VP-6	Vacuum Blanking Plugs (Pk of 6)	11.95

For RouterCAM 700 / 1220

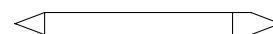
TMP-RC-BED	Texon Bed for RouterCAM 700/1220	15.75
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Tool Packs

TP2-ROUT-RC	Router Tool Pack (<i>Router tools</i>) (Save £5) (4 x TA-RCF6-6, 2 x TA-RCF8-8, TA-RCV8-30, TA-RCV8-60) <i>N.B. Requires collets for 6mm and 8mm tools</i>	197.00
TP-PLAS-RC	Plastics Tool Pack (<i>Plastics tools</i>) (Save £5) (TA-EC6-40, TA-SDEA-2, TA-SDEA-4, TA-SDEA-6) <i>N.B. Requires collets for 3mm, 4mm & 6mm tools</i>	111.00
TP-3D-RC	3D Tool Pack (<i>Specialist 3D tools</i>) (Save £5) (TA-SDE-3, TA-SDE-6, TA-BNE-3, TA-BNE-6) <i>N.B. Requires collets for 3mm & 6mm tools</i>	94.00

Engraving Tool (40 deg)

General purpose carbide tipped vee point engraving tools, ground to an included angle of 40 deg. Suitable for engraving most materials.



TA-EC6-40	40 deg, 6mm (sd), 75mm (ol) (<i>Double ended</i>)	33.00
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V-Shaped Cutters

A range of tungsten carbide v-shaped cutters with two straight flutes.



1/4" shank cutters

TA-RCV1/4-60	60° included angle (sharp point) (A)60° (D)26mm (L)25mm	82.00
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8mm shank cutters

TA-RCV8-30	120° included angle (1mm point) (A)30° (D)21.5mm (L)12mm	43.00
TA-RCV8-45	90° included angle (1mm point) (A)45° (D)18mm (L)14mm	35.00
TA-RCV8-60	60° included angle (1mm point) (A)60° (D)15.75mm (L)16mm	35.00

Router Cutters

Solid carbide single flute cutters with a high helix, high rake flute design ideal for machining man-made boards (MDF etc.), plastics, and even non-ferrous metals.

6mm shank cutter

TA-RCF6-6	6mm (td), 20mm (fl), 6mm (sd), 65mm (ol)	15.00
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8mm shank cutters

TA-RCF8-8	8mm (td), 22mm (fl), 8mm (sd), 65mm (ol)	32.00
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10mm shank cutters

TA-RC10-10	10mm (td), 25mm (fl), 10mm (sd), 75mm (ol)	64.00
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12mm shank cutters

TA-RCF12-12	12mm (td), 30mm (fl), 12mm (sd), 80mm (ol)	79.00
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690



1290



1224



Sieg CNC Lathe

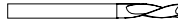


Sieg CNC Mill

N.B. All tool lengths are nominal - see key page 75

Slot Drills

A range of carbide slot drills with tooth forms specially designed for rapid CNC machining in aluminium and plastics.

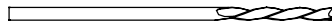


3, 4, 6 and 8mm shank cutters

TA-SDEA-2	2mm (td), 6mm (fl), 3mm (sd), 38mm (ol)	22.00
TA-SDEA-3	3mm (td), 12mm (fl), 3mm (sd), 48mm (ol)	25.00
TA-SDEA-4	4mm (td), 12mm (fl), 4mm (sd), 50mm (ol)	25.00
TA-SDEA-6	6mm (td), 20mm (fl), 6mm (sd), 60mm (ol)	36.00
TA-SDEA-8	8mm (td), 20mm (fl), 8mm (sd), 64mm (ol)	26.00

Long Reach Modelling Slot Drills

A range of long reach carbide slot drills.



Ideal for deep 3D machining

3, 4, 6 and 8mm shank cutters

TA-SDE-3	3mm (td), 20mm (fl), 3mm (sd), 55mm (ol)	21.00
TA-SDE-4	4mm (td), 25mm (fl), 4mm (sd), 75mm (ol)	23.00
TA-SDE-5	5mm (td), 25mm (fl), 5mm (sd), 60mm (ol)	26.00
TA-SDE-6	6mm (td), 25mm (fl), 6mm (sd), 65mm (ol)	27.00
TA-SDE-8	8mm (td), 25mm (fl), 8mm (sd), 80mm (ol)	28.00

Long Reach Ball Nosed Modelling Cutters

A range of long reach carbide ball nosed cutters, ideal for deep 3D machining.



3, 4, 6 and 8mm shank cutters

TA-BNE-3	3mm (td), 20mm (fl), 3mm (sd), 55mm (ol)	22.00
TA-BNE-4	4mm (td), 20mm (fl), 4mm (sd), 60mm (ol)	25.00
TA-BNE-5	5mm (td), 20mm (fl), 5mm (sd), 60mm (ol)	28.00
TA-BNE-6	6mm (td), 25mm (fl), 6mm (sd), 75mm (ol)	29.00
TA-BNE-8	8mm (td), 35mm (fl), 8mm (sd), 100mm (ol)	47.00

RouterCAM Servicing Kits

TMP-RC-GREASEKIT1	RouterCAM 690/1290/1224 Greasing Kit. Includes grease gun and nozzles plus 70g grease.	78.00
TMP-RC-GREASE1	70g Tube of Grease for RouterCAM 690/1290/1224.	28.00
TMP-RC-GREASEGUN1	Grease Gun for RouterCAM 690/1290/1224 (for 70g tube).	36.00
TMP-RC-GREASENOZZ1	Grease Gun nozzles for RouterCAM 690/1290/1224. Various nozzles to fit Grease Gun.	14.00

Sieg CNC Mill Tools

Comprehensive Tool Packs

MT-MM-PK51	Tooling Pack for MP-CM-51 (Includes Swivel Base 75mm machine vice; collet set ER-32 2MT with 6 collets, set of 10 end mills and 10 slots drills, keyless drill chuck and arbor)	336.00
MT-MM-PK53	Tooling Pack for MP-CM-53 (Includes Swivel Base 100mm machine vice; collet set ER-32 R8 with 6 collets, set of 10 end mills and 10 slot drills, keyless drill chuck and arbor)	390.00

Vices

MT-CM-VC53P	Swivel Base 75mm Machine Vice (c/w 2 T-nuts, 2 flange nuts and 2 studs for MP-CM-51)	105.00
MT-CM-VC54P	Swivel Base 100mm Machine Vice (c/w 2 T-nuts, 2 flange nuts and 2 studs for MP-CM-52)	137.00

Collet Chuck Sets

MT-MM-CCS11	Collet Chuck Set ER25 2MT with 6 collets - 6,8,10,12,16,20mm (for MM-METALMILL14/19; MP-CM-51)	83.00
MT-MM-CCS62	Collet Chuck ER32 INT-30, nut wrench and 6 collets - 3,6,8,10,12,16mm (for MP-CM-52)	98.00

Tools

MT-MM-EMS11	20 piece end mill / slot drill set (for MM-METALMILL14/15/16/17/19/20/21; MP-CM-51/52)	110.00
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Sieg CNC Lathe Tools

Comprehensive Tool Packs

MT-LM-PK51	Replacement Tooling Pack for MP-CL-51/52 (Includes Live Centre; Keyless Drill Chuck and Arbor; Indexable tools 10mm - 60deg RH, 60deg LH, vee, external threading + blade-type parting tool)	188.00
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Tools

MT-LM-TTS47	Indexable lathe tools 10mm 4 piece set (60 deg RH, 60 deg LH, Vee, Boring)	67.00
MT-LM-TTS48	Blade-Type Parting Tool 10mm (Includes blade holder, 1 blade and 1 tip)	33.50
MT-LM-TTS49	External Threading Tool 10mm	25.50

Tool Tips

MT-LM-TTT41	Replacement Standard Tip (Insert) for MT-LM-TTS41/42/47	3.95
MT-LM-TTT43	Replacement Parting Tool Tip 2mm (for MT-LM-TTS43/44/45/46/48)	4.30
MT-LM-TTT49	Replacement Tip (Insert) for MT-LM-TTS49	7.30

Milling / Routing / Engraving - Tools

Modela MDX-15E / MDX-20E, EGX-20 / PNC-2000/2100/2200, MDX-3



MDX-15E



MDX-20E

Tool Adaptors & Sacrificial Beds

Modelas have a 6mm dia spindle. However, for most general operations TechSoft recommend the use of 4.36mm (11/64 inch) extended shank tools. These are simply inserted into the machine spindle using a TechSoft tool adaptor. Tools can then be lowered onto the work surface, thus datuming the tool automatically. Adaptors can remain on the tool to allow them to be easily removed and replaced without the need for re-datuming. Two 4.36mm adaptors were supplied by TechSoft with the machine. Extra adaptors are available as follows:

TA-ADAPT-M3	Adaptors for 3.17mm tools (pk 3)	26.95
TA-ADAPT-M4	Adaptors for 4.36mm tools (pk 3)	26.95
TA-HEXTOOL15	1.5mm Hex Tool for spindle grub screws	2.60
TA-HEXTOOL20	2mm Hex Tool for adaptor adjustment	2.95
TC-MDX15-BED	White HIPS Styrene, 148 x 98 x 5mm	2.50
TC-MDX20-BED	White HIPS Styrene, 198 x 148 x 5mm	4.95

Tool Packs

TP-MIX-15/20E	Mixed Tool Pack (<i>General set of tools</i>) (Save £5) (TA-ADAPT-M4, TA-ECT4M-40, TA-SD4M-2, TA-SD4M-4, TA-BN4M-2)	126.00
TP-PCB-15/20E	PCB Tool Pack (<i>Specialist PCB tools</i>) (Save £5) (TA-ADAPT-M3, TA-ADAPT-M4, TA-ECT4M-40, TA-SD4M-2, TA-PD3M-0.8, TA-PD3M-1)	114.00

Engraving Tools

General purpose carbide tipped vee point engraving tools, ground to an included angle of 40 deg. Suitable for engraving most materials, and recommended as a standard tool for all users.

TA-ECT4M-40	40°, 4.36mm (sd), 90mm(ol)	19.50
TA-ECT-REPLACE	Replacement re-sharpened engraving tool (N.B. TA-ECT4M-40 tool must be returned to TechSoft)	6.00

Slot Drills

General purpose milling/drilling slot drills in solid carbide. These tools (particularly in sizes 2mm and above) are specially designed to produce a good surface finish on plastic materials such as styrene and acrylic.

TA-SD4M-0.5	0.5mm (td), 3mm (fl), 4.36mm (sd), 80mm (ol)	49.00
TA-SD4M-0.8	0.8mm (td), 4mm (fl), 4.36mm (sd), 90mm (ol)	21.00
TA-SD4M-1	1mm (td), 5mm (fl), 4.36mm (sd), 90mm (ol)	21.00
TA-SD4M-1.5	1.5mm (td), 5mm (fl), 4.36mm (sd), 90mm (ol)	21.00
TA-SD4M-2	2mm (td), 6mm (fl), 4.36mm (sd), 90mm (ol)	21.00
TA-SD4M-3	3mm (td), 12mm (fl), 4.36mm (sd), 100mm (ol)	24.00
TA-SD4M-4	4mm (td), 15mm (fl), 4.36mm (sd), 100mm (ol)	39.00

N.B. All tool lengths are nominal - see key page 75

Ball Nosed Cutters

General purpose round ended cutters in carbide. They are ideal for 3D modelling, particularly in modelling wax or foam.

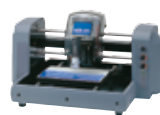
TA-BN4M-2	2mm (td), 6mm (fl), 4.36mm (sd), 85mm (ol)	25.00
TA-BN4M-3	3mm (td), 7mm (fl), 4.36mm (sd), 90mm (ol)	26.00
TA-BN4M-4	4mm (td), 7mm (fl) 4.36mm (sd), 100mm (ol)	43.00

Printed Circuit Board Drills

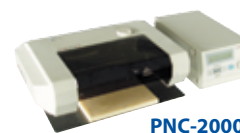
A range of solid carbide PCB drills. These must be used in conjunction with the 3.17mm tool adaptor (TA-ADAPT-M3, see above).

TA-PD3M-0.8	Pack of 5 drills: 0.8mm (td), 10mm (fl), 3.17mm (sd), 38mm (ol)	13.00
TA-PD3M-1	Pack of 5 drills: 1mm (td), 10mm (fl), 3.17mm (sd), 38mm (ol) dia	13.00
TA-PD3M-1.2	Pack of 5 drills: 1.2mm (td), 10mm (fl), 3.17mm (sd), 38mm (ol)	13.00
TA-PD3M-1.5	Pack of 5 drills: 1.5mm (td), 10mm (fl), 3.17mm (sd), 38mm (ol)	13.00

EGX-20/PNC-2000/2100/2200, MDX-3 Tools



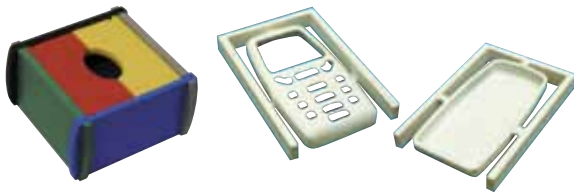
EGX-20



PNC-2000/2100/2200

N.B. For EGX-20/CAMM2 PNC-2000/2100/2200 please see www.techsoft.co.uk/Products/MillingRoutingToolsAccessories

Forex® Classic



Forex classic is a high quality closed cell rigid PVC foam supplied in sheets. Its versatility is unequalled among creative sheet materials. It can be machined nearly four times as fast as acrylic. It can be milled, sawn, drilled, welded, glued, screwed, nailed, riveted, heat bent and painted. TechSoft are the UK educational distributor for this world renowned material. TechSoft stock Forex classic in 3, 5 and 19mm thicknesses.

N.B. Forex® classic is a PVC based material and therefore should not be used on a laser cutting machine (PVC produces dangerous by-products if laser cut).



Black White Red Yellow Grey Blue Green

N.B. Colours shown are only an indication. 19mm Forex Classic only available in white.

*** When ordering, where COL is included in the order code, please change this to specify the actual colour required.**

Nominal size: 610 x 500mm

T AFC6-3-P1	Mixed Pack of 7 Forex Classic Sheets (3mm) <i>One of each colour</i>	58.00
T AFC6-3-7-COL *	Pack of 7 Forex Classic Sheets (3mm) <i>All same colour</i>	58.00
T AFC6-5-P1	Mixed Pack of 7 Forex Classic Sheets (5mm) <i>One of each colour</i>	82.00
T AFC6-5-7-COL *	Pack of 7 Forex Classic Sheets (5mm) <i>All same colour</i>	82.00
T AFC6-19-7-WH	Pack of 7 Forex Classic Sheets (19mm) <i>All white</i>	210.00

Nominal size: 500x400mm (for Modela Pro II MDX-540E)

T AFC5-3-P1	Mixed Pack of 21 Forex Classic Sheets (3mm) <i>3 of each colour</i>	114.00
T AFC5-3-25-COL *	Pack of 25 Forex Classic Sheets (3mm) <i>All same colour</i>	135.00
T AFC5-5-P1	Mixed Pack of 14 Forex Classic Sheets (5mm) <i>2 of each colour</i>	110.00
T AFC5-5-25-COL *	Pack of 25 Forex Classic Sheets (5mm) <i>All same colour</i>	193.00
T AFC5-19-10-WH	Pack of 10 Forex Classic Sheets (19mm) <i>All white</i>	199.00

Nominal size: 305x305mm (for RotoCAMM MDX-40AE, MDX-40E, TS-30E)

T AFC4-3-P1	Mixed Pack of 21 Forex Classic Sheets (3mm) <i>3 of each colour</i>	56.00
T AFC4-3-25-COL *	Pack of 25 Forex Classic Sheets (3mm) <i>All same colour</i>	66.00
T AFC4-5-P1	Mixed Pack of 14 Forex Classic Sheets (5mm) <i>2 of each colour</i>	52.00
T AFC4-5-25-COL *	Pack of 25 Forex Classic Sheets (5mm) <i>All same colour</i>	89.00
T AFC4-19-10-WH	Pack of 10 Forex Classic Sheets (19mm) <i>All white</i>	87.00

Nominal size: 305x230mm (for EGX-30E, Camm 2 PNC2300/A)

T AFC3-3-P1	Mixed Pack of 3 Forex Classic Sheets (3mm) <i>3 of each colour</i>	45.00
T AFC3-3-25-COL *	Pack of 25 Forex Classic Sheets (3mm) <i>All same colour</i>	53.00
T AFC3-5-P1	Mixed Pack of 14 Forex Classic Sheets (5mm) <i>2 of each colour</i>	41.00
T AFC3-5-25-COL *	Pack of 25 Forex Classic Sheets (5mm) <i>All same colour</i>	69.95
T AFC3-19-10-WH	Pack of 10 Forex Classic Sheets (19mm) <i>All white</i>	67.00

Nominal size: 200x150mm (for SRM-20E, Modela MDX-20E)

T AFC2-3-P1	Mixed Pack of 21 Forex Classic Sheets (3mm) <i>3 of each colour</i>	27.00
T AFC2-3-25-COL *	Pack of 25 Forex Classic Sheets (3mm) <i>All same colour</i>	32.00
T AFC2-5-P1	Mixed Pack of 14 Forex Classic Sheets (5mm) <i>2 of each colour</i>	24.00
T AFC2-5-25-COL *	Pack of 25 Forex Classic Sheets (5mm) <i>All same colour</i>	39.50
T AFC2-19-10-WH	Pack of 10 Forex Classic Sheets (19mm) <i>All white</i>	35.50

Nominal size: 150x100mm (for Modela MDX-15E)

T AFC1-3-P1	Mixed Pack of 21 Forex Classic Sheets (3mm) <i>3 of each colour</i>	16.80
T AFC1-3-25-COL *	Pack of 25 Forex Classic Sheets (3mm) <i>All same colour</i>	19.30
T AFC1-5-P1	Mixed Pack of 14 Forex Classic Sheets (5mm) <i>2 of each colour</i>	15.00
T AFC1-5-25-COL *	Pack of 25 Forex Classic Sheets (5mm) <i>All same colour</i>	24.00
T AFC1-19-10-WH	Pack of 10 Forex Classic Sheets (19mm) <i>All white</i>	19.40

Nominal size: 86x55mm (for iModela iM-01)

T AFC0-3-P1	Mixed Pack of 21 Forex Classic Sheets (3mm) <i>3 of each colour</i>	9.95
T AFC0-3-25-COL	Pack of 25 Forex Classic Sheets (3mm) <i>All same colour</i>	11.30
T AFC0-5-P1	Mixed Pack of 14 Forex Classic Sheets (5mm) <i>2 of each colour</i>	8.50
T AFC0-5-20-COL	Pack of 20 Forex Classic Sheets (5mm) <i>All same colour</i>	10.65
T AFC0-19-12-WH	Pack of 12 Forex Classic (19mm) <i>All white</i>	10.75

Acrylic

TechSoft stock a range of acrylics suitable for milling. See page 27 for details.

Rotary Engraving Laminates



Photograph engraved using PhotoVCarve

Flexible White on Black



Keyfob engraved from 2D Design

Flexible brushed aluminium on black

Engraving laminate works by having a base material covered with a thin layer of a contrasting colour. As the material is engraved, the base colour is revealed to decorative effect.

We stock two types of rotary engraving laminates, rigid and flexible. The rigid material has a hard shiny finish and is very durable. It is great for door signs, etc., but it is quite abrasive, so tool life must be budgeted for when using it. Flexible engraving laminate is ideal for many school projects as it is easy to machine, and is not abrasive. It is available in a variety of colours and interesting finishes. We are often disappointed that people seem to overlook this marvellous material. Possibly it sounds expensive at £15.50 for a 610 x 610 x 1.5mm sheet. However, it is ideal for projects such as jewellery where only small amounts would be used. Typically a key fob could easily be machined in less than a couple of minutes and would cost less than 20p. Quick whole class projects can now be a doddle!

N.B. Rotary engraving laminate is not suitable for use with laser cutters, see Laser Engraving Laminates, page 28

F-Colour includes:

F1

Red on White

F2

Blue on White

F3

Green on White

F4

Black on White

F5

White on Black

F8

Yellow on Black

F9

Grey on White

F10

White on Red

M-Colour includes:

M1

Gold on Black

M2

Brushed Aluminium on Black

R-Colour includes:

R1

Rigid Red on White on Red

R2

Rigid Blue on White on Blue

R3

Rigid Black on White on Black

N.B. Colours shown are only an indication.

* When ordering, where COL is included in the order code, please change this to indicate the actual colour required from the charts above.

Nominal size: 610 x 610mm

TAP-FCOL*	F-Colour Flexible Rotary Engraving Laminate	13.60
TAP-MCOL*	M-Colour Flexible Rotary Engraving Laminate	16.25
TAP-RCOL*	R-Colour Rigid Rotary Engraving Laminate	21.00

Nominal size: 500 x 400mm (for Modela Pro II MDX-540E)

TAP5-P2	Mixed Pack of 10 Flexible Rotary Engraving Laminate. <i>One of each colour (F and M colours)</i>	104.00
TAP5-10-FCOL*	Pack of 10 F-Colour Flexible Rotary Engraving Laminate. <i>All the same colour</i>	99.00
TAP5-10-MCOL*	Pack of 10 M-Colour Flexible Rotary Engraving Laminate. <i>All the same colour</i>	118.00

Nominal size: 305 x 305mm (for RotoCamm MDX-40AE, MDX-40E)

TAP4-P2	Mixed Pack of 10 Flexible Rotary Engraving Laminate. <i>One of each colour (F and M colours)</i>	47.50
TAP4-10-FCOL*	Pack of 10 F-Colour Flexible Rotary Engraving Laminate. <i>All the same colour</i>	45.95
TAP4-10-MCOL*	Pack of 10 M-Colour Flexible Rotary Engraving Laminate. <i>All the same colour</i>	51.95

Nominal size: 305 x 230mm (for EGX-30E, Camm 2 PNC2300/A)

TAP3-P2	Mixed Pack of 10 Flexible Rotary Engraving Laminate. <i>One of each colour (F and M colours)</i>	39.95
TAP3-10-FCOL*	Pack of 10 F-Colour Flexible Rotary Engraving Laminate. <i>All the same colour</i>	37.95
TAP3-10-MCOL*	Pack of 10 M-Colour Flexible Rotary Engraving Laminate. <i>All the same colour</i>	43.95

Nominal size: 200 x 150mm (for Modela MDX-20E)

TAP2-P2	Mixed Pack of 10 Flexible Rotary Engraving Laminate. <i>One of each colour (F and M colours)</i>	23.50
TAP2-10-FCOL*	Pack of 10 F-Colour Flexible Rotary Engraving Laminate. <i>All the same colour</i>	22.50
TAP2-10-MCOL*	Pack of 10 M-Colour Flexible Rotary Engraving Laminate. <i>All the same colour</i>	24.50

Nominal size: 150 x 100mm (for SRM-20E, Modela MDX-15E)

TAP1-P2	Mixed Pack of 10 Flexible Rotary Engraving Laminate. <i>One of each colour (F and M colours)</i>	17.95
TAP1-10-FCOL*	Pack of 10 F-Colour Flexible Rotary Engraving Laminate. <i>All the same colour</i>	16.55
TAP1-10-MCOL*	Pack of 10 M-Colour Flexible Rotary Engraving Laminate. <i>All the same colour</i>	17.95

Nominal size: 86 x 55mm (for iModela iM-01)

TAP0-P2	Mixed Pack of 10 Flexible Rotary Engraving Laminate. <i>One of each colour (F and M colours)</i>	13.95
TAP0-10-FCOL*	Pack of 10 F-Colour Flexible Rotary Engraving Laminate. <i>All the same colour</i>	13.50
TAP0-10-MCOL*	Pack of 10 M-Colour Flexible Rotary Engraving Laminate. <i>All the same colour</i>	13.95

PCB Materials

We stock two PCB materials FR4 and FR2. FR4 material is resin based, glass reinforced, 1oz copper coated, PCB laminate. FR2 material is similar in appearance, but uses laminated paper rather than glass. It is not quite so strong, but it is much less abrasive. This means much longer tool life and lower cost, making it an ideal choice for education. FR4 material is available in two thicknesses 1.6mm and 1mm. The 1mm is non-standard, but is ideal for use with plotters when direct plotting.



FR2 Material *(ideal for CAD/CAM)*

Nominal size: 610 x 510 x 1.6mm

TA-FR2-1.6N	FR2 Copper coated laminate single sided sheet	8.50
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Nominal size: 500 x 400 x 1.6mm *(for Modela Pro II MDX-540E)*

TACB5-5	Pack of 5 FR2 Copper coated laminate single sided sheets	29.00
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Nominal size: 305 x 305 x 1.6mm *(for RotoCAMM MDX-40AE, MDX-40E)*

TACB4-10	Pack of 10 FR2 Copper coated laminate single sided sheets	31.50
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Nominal size: 305 x 230 x 1.6mm *(for EGX-30E, Camm 2 PNC2300/A)*

TACB3-10	Pack of 10 FR2 Copper coated laminate single sided sheets	23.95
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Nominal size: 200 x 150 x 1.6mm *(for SRM-20E, Modela MDX-20E)*

TACB2-10	Pack of 10 FR2 Copper coated laminate single sided sheets	15.50
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Nominal size: 150 x 100 x 1.6mm *(for Modela MDX-15E)*

TACB1-10	Pack of 10 FR2 Copper coated laminate single sided sheets	10.95
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Nominal size: 86 x 55 x 1.6mm *(for iModela iM-01)*

TACB0-10	Pack of 10 FR2 Copper coated laminate single sided sheets	8.50
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FR4 Material *(ideal for traditional etching)*

Nominal size: 575 x 530mm

TA-FR4-1	FR4 Copper coated laminate single sided sheet 575 x 530 x 1mm	10.50
TA-FR4-1.6	FR4 Copper coated laminate single sided sheet 575 x 530 x 1.6mm	11.95

Double Sided Tape



Good quality double sided tape is strongly recommended for holding work to the bed of all models of RotoCAMM, SRM-20E, MODELA, CAMM 2 and MODELA PRO. Many tapes have "done away with the tape" and are effectively just a layer of glue. These stick well, but leave a gummy residue which is difficult to remove from both the work and the bed. We stock a "proper" tape, which sticks well, but can easily be removed from the workpiece. We cannot over-emphasise how important it is to your sanity to use this tape, or one similar, for work holding.

TA-TAPE	EPVC double sided tape 12mm x 33m	5.65
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Jelutong

Jelutong has been used for years, by model makers, as a hand carving material. The nature of the material also makes it well suited to machining on a Roland miller/router. Jelutong is ideal for machining moulds for the LT1 - Low temperature casting system (see page 165). It machines quicker than MDF making it especially good for 3D relief moulds.



TA-JELU-50	Pack of 50 blocks (100 x 70 x 15mm)	58.00
TAJL0-5	Pack of 5 blocks for iModela (86 x 55 x 15mm)	9.95

VCarving Board

Ideal for VCarving and PhotoVCarving this specially manufactured black board has a contrasting top layer with a white spray painted finish. Once VCarved or PhotoVCarved the black board is visible through the top layer and the design or photographic image appears.



Nominal size: 600 x 600 x 9mm

TA-VCB-WB	White on black VCarving board	37.00
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Food Grade Polyethylene

In response to enquiries from teachers we now stock a modelling material which is food grade. This new material offers pupils the chance to design and manufacture such items as confectionery or biscuit moulds. The resulting mould, once washed, is suitable for press moulding to create the final food product.



Nominal size: 500 x 500 x 20mm

TA-FGN	White Food grade polyethylene. 1 block	49.00
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Nominal size: 500 x 400 x 20mm *(for Modela Pro II MDX-540E)*

TAFG5-2	White Food grade polyethylene. 2 blocks	99.00
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Nominal size: 305 x 305 x 20mm *(for RotoCAMM MDX-40AE / 40E)*

TAFG4-2	White Food grade polyethylene. 2 blocks	99.00
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Nominal size: 305 x 230 x 20mm *(for EGX-30E, Camm 2 PNC2300/A)*

TAFG3-3	White Food grade polyethylene. 3 blocks	81.00
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Nominal size: 200 x 150 x 20mm *(for SRM-20E, Modela MDX-20E)*

TAFG2-3	White Food grade polyethylene. 3 blocks	32.00
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Nominal size: 150 x 100 x 20mm *(for Modela MDX-15E)*

TAFG1-5	White Food grade polyethylene. 5 blocks	28.00
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Nominal size: 86 x 55 x 20mm *(for iModela iM-01)*

TAFG0-3	White Food grade polyethylene. 3 blocks	8.25
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Modelling Foam

This is an easy machining closed cell rigid foam, ideal for 3D prototyping and modelling. It can be machined at high speed with minimal tool wear. The foam is supplied in two densities. Low density foam allows rough models and prototyping at low cost. High density foam, with its greater structural strength and ability to hold surface detail, is ideal for finished models. The high density foam can also be used as a plug for vacuum forming, (painting is recommended to prevent the foam sticking to the styrene). The foam can also be used as a mould for low melting point alloys for applications such as jewellery manufacture.



Modelling foam is the first choice material for most 3D modelling in schools.

Nominal size: 500 x 400mm (for Modela Pro II MDX-540E)

T AFL5-25-6	Low density foam 25mm. 6 blocks	56.00
T AFL5-50-3	Low density foam 50mm. 3 blocks	47.00
T AFH5-25-6	High density foam 25mm. 6 blocks	97.00
T AFH5-50-3	High density foam 50mm. 3 blocks	87.00

Nominal size: 305 x 305mm (for RotoCAMP MDX-40AE / 40E)

T AFL4-25-10	Low density foam 25mm. 10 blocks	38.00
T AFH4-50-5	Low density foam 50mm. 5 blocks	35.00
T AFH4-25-10	High density foam 25mm. 10 blocks	59.00
T AFH4-50-5	High density foam 50mm. 5 blocks	52.00

Nominal size: 305 x 195mm (for Self-Centering Vice, EGX-30E, Camm 2 PNC2300/A)

T AFL7-25-12	Low density foam 25mm. 12 blocks	31.00
T AFL7-50-6	Low density foam 50mm. 6 blocks	24.00
T AFH7-25-12	High density foam 25mm. 12 blocks	47.00
T AFH7-50-6	High density foam 50mm. 6 blocks	39.00

Nominal size: 200 x 150mm (for SRM-20E, Modela MDX-20E)

T AFL2-25-24	Low density foam 25mm. 24 blocks	38.00
T AFL2-50-12	Low density foam 50mm. 12 blocks	28.00
T AFH2-25-24	High Density foam 25mm. 24 blocks	56.00
T AFH2-50-12	High Density foam 50mm. 12 blocks	46.00

Nominal size: 150 x 100mm (for iModela MDX-15E)

T AFL1-25-48	Low density foam 25mm. 48 blocks	46.00
T AFL1-50-24	Low density foam 50mm. 24 blocks	32.00
T AFH1-25-48	High density foam 25mm. 48 blocks	64.00
T AFH1-50-24	High density foam 50mm. 24 blocks	49.00

Nominal size: 86 x 55mm (for iModela iM-01)

T AFH0-20-6	High Density Foam 20mm. 6 blocks	8.25
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N.B. Due to the nature of the very fine dust produced by this material, vacuum extraction **MUST** be used on the RotoCAMP, CAMM 2 and all models of MODELA PRO and CAMM 3, to prevent ingress into bearings and potential inhalation by operators.

Modelling Board

When product designers and pattern makers need to machine a high quality part they often use a specialist modelling board. TechSoft's modelling board has a very fine structure and excellent machining properties which both help to produce a smooth paintable surface. TechSoft even supply a colour matched adhesive specially formulated for this type of modelling board. Modelling board is the ideal choice for those wanting a durable and professional quality 3D model.



Available in 25, 50 and 100mm thick sheets (Colour - Light Brown) and in a range of sizes.

Nominal size: 500 x 500mm

TA-MB-25	25mm thick modelling board. 1 block	41.50
TA-MB-50	50mm thick modelling board. 1 block	59.95
TA-MB-100	100mm thick modelling board. 1 block	109.00

Nominal size: 500 x 400mm (for Modela Pro II MDX-540E)

TAMB5-25-2	25mm thick modelling board. 2 blocks	79.00
TAMB5-50-2	50mm thick modelling board. 2 blocks	116.00

Nominal size: 305 x 305mm (for RotoCAMP MDX-40AE, MDX-40E)

TAMB4-25-2	25mm thick modelling board. 2 blocks	61.00
TAMB4-50-2	50mm thick modelling board. 2 blocks	89.00

Nominal size: 305 x 230mm (for EGX-30E, Camm 2 PNC2300/A)

TAMB3-25-5	25mm thick modelling board. 5 blocks	76.00
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Nominal size: 200 x 150mm (for SRM-20E, Modela MDX-20E)

TAMB2-25-5	25mm thick modelling board. 5 blocks	31.50
TAMB2-50-5	50mm thick modelling board. 5 blocks	45.00

Nominal size: 150 x 100mm (for Modela MDX-15E)

TAMB1-25-5	25mm thick modelling board. 5 blocks	19.95
TAMB1-50-5	50mm thick modelling board. 5 blocks	27.50

Nominal size: 86 x 55mm (for iModela iM-01)

TAMB0-25-3	25mm thick modelling board. 3 blocks	13.50
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Colour Matched Adhesive

TA-MB-GLUE	Colour matched two part polyurethane based glue (1kg Resin and 1kg Hardener)	62.00
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Modelling Wax

This is a hard blue wax formulated specifically for ease of machining. It allows articles to be modelled at high feeds and speeds, thus ensuring the shortest possible machining time. It is ideal for vacuum forming over, and it also makes an excellent mould for casting resin. Although initially expensive, this should be regarded as an investment, as it may be melted down and re-cast in simple moulds (such as baking trays), for re-use.



Nominal size: 176 x 75 x 38mm

ZW-100-TS	High quality machinable modelling wax. 5 blocks	99.00
ZW-200	High quality machinable modelling wax. 10 blocks	189.00

Nominal size: 86 x 55 x 17mm (for iModela iM-01)

TAMW0-2	High quality machinable modelling wax. 2 blocks	17.95
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Machining Plastic

This is a rigid plastic with excellent machining properties. It has very good resilience and dimensional stability. It also has good sliding wear resistance making it excellent for bearing surfaces, and good electrical insulating properties making it ideal for use in all sorts of electronics projects.



In appearance it is similar to nylon, but with a slightly less shiny surface. It machines superbly using standard HSS or carbide tooling, without the melting and stringing problems associated with most plastic materials. Although significantly more expensive than, say, modelling foam, this material is perfect for most 3D manufacturing projects that need a structural outcome. Ideal for one off GCSE and A level projects for example.

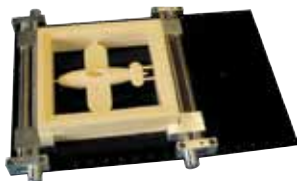
Available in 25 and 50mm thick sheets - colour white (W) or black (B). Nominal size: 500 x 500mm.

*** When ordering, where WB is included in the order code, please change this to specify whether white or black is required.**

TA-MP25-WB*	Machining Plastic 500 x 500 x 25mm	145.00
TA-MP50-WB*	Machining Plastic 500 x 500 x 50mm	295.00

Self-Centering Vice

3D machining one side of an object is easy, but if the object needs to be machined all round how do you hold it? TechSoft have designed a low cost solution to this problem, a special self-centering vice. 3D objects are machined into a block, which can then be accurately turned over for machining the other surface (two sided machining). Complex objects can be machined from four sides. The vice fits easily onto the existing bed and can be quickly removed when not required.



The use of the self-centering vice is fully supported within Visual Toolpath (see page 21) for both 2 and 4 sided machining.

For RotoCAMM MDX-40AE, MDX-40E, TS-30E & TS-400E, Modela Pro II MDX-540E

*** When ordering please specify machine.**

RL-ROTO-VICE*	Self-Centering Vice (inc. TechSoft Training Pack)	245.00
RL-ROTO-VICEVT*	Self-Centering Vice & Visual Toolpath (inc. TechSoft Training Pack) (Save £40.00)	400.00

Materials Packs

These packs have been created by popular demand to take the hassle out of ordering, and to give a modest cost saving overall. Each pack contains a generous selection of materials particularly suited to the machine listed. Ideal as a basic stock, for back-up and for developing projects using different materials. We have included a roll of our 'firm-grip, clean-peel' double-sided tape and a spare sacrificial bed.

TPM2-IMOD1	Mixed Pre-Cut Materials Pack for iModela, iM-01 (Save £5) Contains rotary engraving laminate (TAPO-P2); Forex Classic (TAFCO-3-P1, TAFCO-5-P1); PCB engraving laminate (TACB0-10); high density foam (TAFH0-20-6); modelling board (TAMB0-25-3); sacrificial bed (TA-IMOD1-BED); double-sided tape (TA-TAPE)	64.00
TPM2-MDX15	Mixed Pre-Cut Materials Pack for MDX-15E (Save £15) Contains rotary engraving laminate (TAP1-P2); Forex Classic (TAF1-3-P1, TAF1-5-P1); PCB engraving laminate (TACB1-10); high density foam (TAFH1-40-50); modelling board (TAMB1-25-5); sacrificial bed (TC-MDX15-BED); double-sided tape (TA-TAPE)	177.00
TPM2-MDX20	Mixed Pre-Cut Materials Pack for SRM-20E/MDX-20E (Save £15) Contains rotary engraving laminate (TAP2-P2); Forex Classic (TAF2-3-P1, TAF2-5-P1); PCB engraving laminate (TACB2-10); high density foam (TAFH2-40-24); modelling board (TAMB2-25-5); sacrificial bed (TC-MDX20-BED); double-sided tape (TA-TAPE)	173.00
TPM2-MDX40	Mixed Pre-Cut Materials Pack for MDX-40AE (Save £15) Contains rotary engraving laminate (TAP4-P2); Forex Classic (TAF4-3-P1, TAF4-5-P1); PCB engraving laminate (TACB4-10); high density foam (TAFH4-25-10, TAFH4-50-5); modelling board (TAMB4-25-2); sacrificial bed (TC-TS30-BED); double-sided tape (TA-TAPE)	365.00
TPM2-MDX540	Mixed Pre-Cut Materials Pack for MDX-540E (Save £27) Contains rotary engraving laminate (TAP5-P2); Forex Classic (TAF5-3-P1, TAF5-5-P1); PCB engraving laminate (TACB5-5); high density foam (TAFH5-25-6, TAFH5-50-3); modelling board (TAMB5-25-2); machining plastic (TA-MP25-B); sacrificial bed (TC-MDX540-BED); double-sided tape (TA-TAPE)	773.00
TPM2-EGX350	Mixed Pre-Cut Materials Pack for EGX-350E (Save £10) Contains rotary engraving laminate (TAP3-P2); Forex Classic (TAF3-3-P1, TAF3-5-P1); PCB engraving laminate (TACB3-10); sacrificial bed (TC-CAMM2-BED); double-sided tape (TA-TAPE)	156.00

Mains Switching Unit

The MSU links your miller/router and extraction unit, so that the extraction unit automatically switches on and off. This handy little unit also has a manual over-ride facility to allow manual cleaning of the machine.



For RotoCAMM MDX-40AE, MDX-40E, TS-30E & TS-400E, EGX-350E, CAMM2 PNC-2300/A & EGX-300E, Modela Pro MDX-500E & MDX-650E

RL-ROTO-SWITCH	Mains Switching Unit	120.00
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Cables

CB031	2mm USB 2.0, AM-BM, Cream Lead (for Brother, OKI & Roland machines)	3.95
CB039	5m USB 2.0, AM-BM, Black Lead (for Brother, OKI & Roland machines)	1.50
CB042	3m USB 2.0, AM-AM, Clear Lead (for LaserCAM)	2.35
CB029	PC serial to Picza/MDX (9 pin - 25 pin)	14.95
CB034	MDX-15/20 USB to Serial Adaptor	25.00
CB035	2m Cat 5E Lead Patch Blue	3.00
CB036	10m Cat 5E Lead Patch Blue	9.50
CB037	5m Cat 5E Lead RJ45 Crossover, Yellow	4.00
CB038	10m Cat 5E Lead RJ45 Crossover, Yellow	6.00

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Locktronics



Simplifying electricity

Locktronics remains the system of choice for teaching the basics of electricity in over half of UK school science departments - but it has huge potential for Design and Technology too. Locktronics solutions now provide teaching applications for schools, universities and industry and the technology covers everything from simple circuits through analogue and digital electronics to microprocessor control. Customers include blue-chip names such as Rolls Royce, Porsche and General Motors, to name just a few. Locktronics is based around a simple, robust base board with a grid of connecting pillars. Electronic components are mounted on a sturdy carrier with the appropriate circuit symbol bonded into the upper surface. These then snap into the grid to effectively reproduce the circuit diagram but with real components. As students build and test the circuit, they will be maintaining a strong, tangible link between theory and practice. If they turn the carrier over, the component itself is visible making it a short step to soldering their own project circuits. All Locktronics kits are supplied with comprehensive teaching materials in digital format. Worksheets can be freely copied or made available to students. Locktronics kits neatly pack away into robust cases which makes classroom management very easy. The system is proven to be mechanically and electronically robust so will cope with years of enthusiastic use by students of all ages.



Fundamentals of Electricity



Covers everything students need to know about conductors and insulators, simple switches and connecting output devices such as lamps and motors. Series and parallel circuits are explored and students learn how to read and draw conventional circuit diagrams. Although aimed at KS2 science requirements, the Fundamentals solution is perfect to help D&T students at KS3 understand, design, model and test the simple circuits that they need for projects including using E-Textiles elements.

Prices £*		<small>*See Pricing Information on page 2</small>
EL-LK6444	Locktronics - Fundamentals of Electricity	111.00

PICmicro Systems



Programmable components are an essential for KS3 D&T and provide a rich resource for clever and relevant D&T project work at KS4. The PICmicro Solution uses a pre-programmed PIC controller that snaps into the Locktronics base board. Input and output devices from previous work are then snapped into place. The PIC controller is then switched to replicate the common logic gates that are fundamental to all digital devices. Using a variety of inputs, outputs and logic functions, students construct and test some fascinating solutions to familiar problems.

Prices £*		<small>*See Pricing Information on page 2</small>
EL-LK8922-2	Locktronics - PICmicro Microcontroller Systems	241.00

Electricity Magnetism and Materials



An introduction to electronics that provides students at KS3 with the knowledge they need and a sound foundation for future work with digital and analogue systems. Practical exercises lead students through the concepts of voltage, current, resistance and electrical power and their relationship using Ohms Law is introduced. Further exploration of conductors and circuits leads to the idea of a semiconductor. LEDs, LDRs and Thermistors are explored as useful input devices for simple electronic control systems.

Prices £*		<small>*See Pricing Information on page 2</small>
EL-LK9071-2	Locktronics - Electricity, Magnetism and Materials	220.00

Energy and Environment



Some lively and relevant exercises explore our need for energy and how we can measure energy use to make judgements. Green sources of energy are tested and measured but can these be relied on for a continuous supply? Practical ways of storing energy are investigated which develops into understanding the need for energy management. In conclusion, students will build and program input devices and energy sources through an on-board PICmicro-controller to provide energy that meets demand but is sustainable. There are no easy answers!

Prices £*		<small>*See Pricing Information on page 2</small>
EL-LK7345-2	Locktronics - Energy and the Environment	361.00

BBC micro:bit



Learn to bod with the BBC micro:bit

The BBC micro:bit is the spiritual successor of the BBC Micro of the 1980s, which itself introduced a generation of children to computing. The BBC micro:bit carries on this 30 year tradition and does it 18 times faster and is 70 times smaller than its predecessor.

This powerful handheld, fully programmable, computer designed by the BBC and a number of partners to encourage children to get actively involved in writing software and building new things that will be controlled by it.

Featuring a 5x5 LED Matrix, two integrated push buttons and a compass, accelerometer and bluetooth all on-board, the device makes a great introduction to the world of programmable components. The main I/O rings can be used as outputs to control LEDs, motors and much more, and also as inputs to connect external sensors and switches.



The main rings are large enough that young people can easily connect to them with crocodile clips or conductive thread.

Write your code using one of the easy to use editors provided on the BBC micro:bit website, connect your BBC micro:bit to your computer via USB, press the compile button in the editor and then drop the downloaded file directly onto your BBC micro:bit. There is also an app for Android devices.

Wirelessly connect and interact with the world around you. Use Bluetooth Low Energy to connect to mobile phones and tablets, take a selfie or drive the music in your playlists. All of this in a device only 5cm wide!

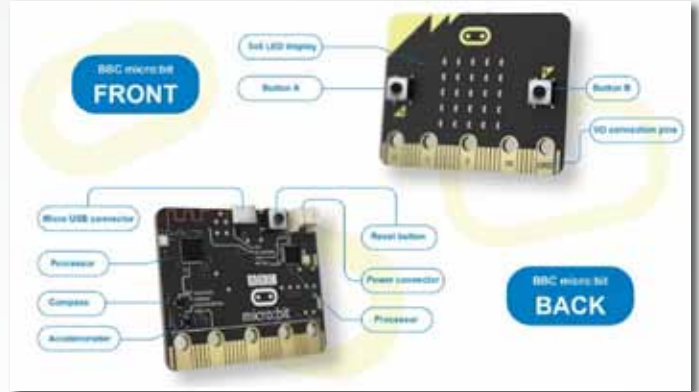


Based around a 32 bit ARM Cortex-M0 processor, the BBC micro:bit features an on board accelerometer and compass sensors, Bluetooth Low Energy and USB connectivity, a display

consisting of 25 LEDs, two programmable buttons and it can be powered by either USB or an external battery pack. The device inputs and outputs are through five ring connectors that are part of the 21-pin edge connector.

Each Micro:bit Features:

- USB and Bluetooth Low energy connectivity.
- Compass and Accelerometer.
- 2 x user assignable buttons.
- A 25 LED display.
- 21 pin edge connector.
- Dimensions; 42(W) x 52(D) x 11.7(H)mm



EL-BM11



EL-BM3

Prices £* *See Pricing Information on page 2

BBC micro:bit with Accessories

Product Code	Description	Price
EL-BM10	BBC micro:bit (Board Only). A portable, low power, user programmable computer	10.82
EL-BM11	BBC micro:bit (Board Only). Retail Pack. A portable, low power, user programmable computer in retail packaging.	11.50
EL-BM12	BBC micro:bit Starter Kit. Contains a BBC micro:bit, a 1m anti-tangle USB cable, a AAA battery cage and 2 x AAA batteries.	12.49
EL-BM13	BBC micro:bit 10 Student Classroom Pack. Contains 10 BBC micro:bits, 10 1m anti-tangle USB cables, 10 2xAAA battery cages and 20 AAA batteries.	124.00
EL-BM14	BBC micro:bit with M1:pro Case and Accessories. Contains a BBC micro:bit, M1:pro protector case, 1m anti tangle USB cable and a 2xAAA battery pack.	16.99
EL-BM15	BBC micro:bit with M1:power Board and Cable. Contains a BBC micro:bit, M1: power board, 1m anti tangle USB cable.	16.49
EL-BM16	BBC micro:bit with Inventor's Kit and Accessories. Contains a BBC micro-bit, Inventor's Kit, 1m anti tangle USB cable and a 2xAAA battery pack.	32.99

Accessories Only

EL-BM1	Edge Connector Break out Board (Unbuilt) for BBC micro:bit. Gives access to all the important pins on the bottom edge of the BBC micro:bit	2.50
EL-BM1-10	10 Edge Connector Break out Boards Unbuilt for BBC micro:bit	20.00
EL-BM1B	Edge Connector Break out Board (Built) for BBC micro:bit. Gives access to all the important pins on the bottom edge of the BBC micro:bit	4.16
EL-BM2	Motor Driver Board for BBC micro:bit. Allows two motors to be driven with forward, reverse and stop control	9.58
EL-BM2-10	10 Motor Driver Boards for BBC micro:bit	80.00
EL-BM3	Inventors Kit for BBC micro:bit. Contains everything you need to complete 10 experiments including using LEDs, motors, LDRs and capacitors	20.79
EL-BM4	Mi:pro Mountable Case for BBC micro:bit. A 'mountable' case for the BBC micro:bit featuring two keyhole mounting slots	3.96
EL-BM5	Mi:pro Protective Case for BBC micro bit. Keeps the BBC micro:bit in perfect condition and also allows access to the bottom edge pins	3.96
EL-BM6	Prototyping System for BBC micro:bit. Break out all 21 pins of the BBC micro:bit and easily connect additional components using this Prototyping System	12.46





What is a Raspberry Pi?

The Raspberry Pi is a low cost, credit-card sized computer that plugs into a computer monitor or TV, and uses a standard keyboard and mouse. It is a capable little device that enables people of all ages to explore computing, and to learn how to program in languages such as Scratch.

What is the Control Resources Kit?

The Control Resources Kit contains a small interface board called the Pibrella which connects to the Raspberry Pi. Packaged with this are lesson plans, powerpoints, videos and worksheets to guide the teacher and students through six control projects.



The Pibrella



model, debugging as they go. The Illusion Spinners, Spy Kits and Buzz Wire games which they produce will demonstrate just how programming can turn into real life outcomes – making the work both interesting and engaging.



Will Students be Coding?

Students will program the device using the Scratch programming language, writing and testing code to get their models to work. Instructions on how to do this are provided. Students will see the outcome of their coding as they work towards a fully functional

All the components required for the six projects are included. This comprehensive set of lessons covers almost all areas of the new computing curriculum at Key Stage 2/3 and is a great time-saving aid for teachers.

Control Resources Teaching Programs



As part of the Control Resources Kit there are lesson plans for six different projects. Each lesson comes with a complete PowerPoint presentation, carefully designed to cover core concepts with video support when needed. In addition, each lesson plan has a number of differentiated worksheets to aid students of any ability level.

Six Units of Work

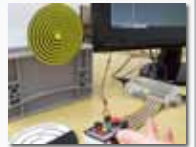
Unit 1: Ultra Violet Spy

A great introduction to controlling external devices with the Raspberry Pi, your pupils will love reading secret ultra-violet messages.



Unit 2: Magic Illusion

Learn how to control motors and make a variety of mesmerising patterns.



Unit 3: Traffic Lights

This unit introduces using loops and repeat instructions, as your students create their own traffic lights.



Unit 4: Buzz Wire Game

A fun game to play once your pupils have got to grips with monitoring an input - maybe even make a variable and add your own scoring system!



Unit 5: Intruder Alarm

You can get your students making fully functioning burglar alarms, as they develop their coding skills in a more complex system with multiple inputs.



Unit 6: Quiz Game

This unit allows your students to make their own quiz machines, and use inputs and outputs to create a game show style setup in the classroom.



Control Resources Kits with Raspberry Pi



Raspberry Pi Model 3 with Control Resources Kit. Includes Raspberry Pi Model 3, transparent protective case, keyboard, mouse, HDMI, network cable, 8Gb SD card, Pibrella Interface Kit, Teaching and Learning with the Raspberry Pi DVD (site licence) and all the peripherals (motors, wires, LEDs, etc) needed to complete the 6 Educational Units in the course

Prices £*		*See Pricing Information on page 2
EL-RPKIT1U	Raspberry Pi Model 3 with Control Resources Kit (no monitor)	*149.99
EL-RPKIT1UM	Raspberry Pi Model 3 with Control Resources Kit + 21" monitor	**216.99
EL-RPKIT1C	Class Set of 15 Raspberry Pi Model 3 with Control Resources Kit (no monitors)	1,749.00
EL-RPKIT1CM	Class Set of 15 Raspberry Pi Model 3 with Control Resources Kit + 21" monitors	2,799.00

Control Resources Kits Only



Control Resources Kit for the Raspberry Pi. Includes 8Gb SD card, Pibrella Interface Kit, Teaching and Learning with the Raspberry Pi Course DVD (site licence), 6 Educational Kits of peripherals (motors, wires, LEDs, etc).

Prices £*		*See Pricing Information on page 2
EL-RPKIT2U	Control Resources Kit for the Raspberry Pi	87.99
EL-RPKIT2C	Class Set of 15 Control Resources Kit for the Raspberry Pi	949.00

* Price for 5+ EL-RPKIT1U is £139.99 each
** Price for 5+ EL-RPKIT1UM is £211.99 each

Electronics and Programmable Components

Flowcode Software

FLOWCODE 6

Electronic system design software



Flowcode software is a graphical programming tool that allows those with little programming experience to develop electronic and electromechanical systems in minutes.

How does it work?

Flowcode uses standard flow chart icons to enable you to quickly develop electronic systems based on a range of microcontrollers. The easy-to-use interface and comprehensive component libraries means those with little experience of programming are able to pick up the fundamentals quickly and develop highly functional systems.



Simulation

Flowcode has both 2D and 3D simulation capabilities. Students can work at a 2D circuit board level with switches, LEDs and displays, and can simulate the programs, interact with switches and sensors and see the effects on the circuit on-screen before downloading to chip. Students can also simulate 3D electromechanical designs with DC motors, servo motors, stepper motors and solenoids connected to mechanical objects.

Test

Flowcode incorporates instrumentation including multi-channel oscilloscope, logic analyser, data consoles, in-circuit debug and in-circuit test. To take advantage of this you will need the PICmicro Development Centre - see page 91.

Download to target

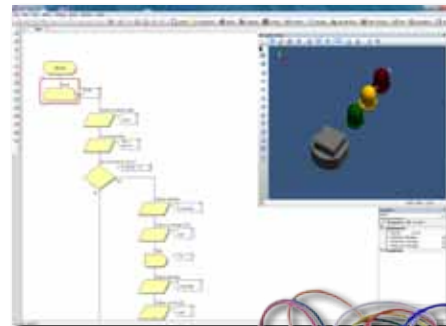
Flowcode creates hex code for selected microcontrollers including the popular PICmicro series, the AVR series, and the Arduino series. You can use our own hardware boards or any hardware board on the market that is compatible with hex code including Arduino Mega, Uno and Nano, Microchip's PICKIT etc.

Integration with SolidWorks

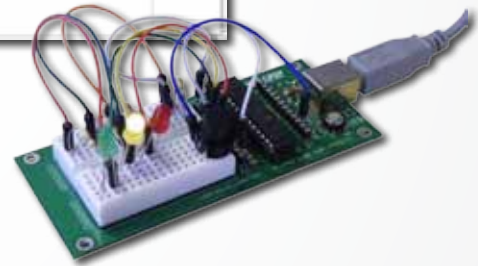
For electromechanical designs you can import Solidworks files, attach motors to them and bring them to life with your program.

Curriculum Resources

For each of the courses there are full curriculum resources in the form of printable worksheets and online learning resources. Printable resources are in full colour and designed by qualified teachers.



A simple "traffic lights" project



Software Information

50 User Licence

Flowcode SE is licensed for 50 simultaneous users on your local area network. Full MSI scripts allow for easy installation.

Home Licences

For a 50 user licence you will also be able to licence up to 100 students at home. This will require registration: simply send us an Excel file with the student email addresses in and we will issue licence codes.

PIC or Arduino / AVR Licence

The SE version of Flowcode is compatible with selected PIC, dsPIC, AVR, and Arduino chips, many third party hardware boards, and our own hardware platforms.

Prices £*

*See Pricing Information on page 2

Electronic Programmable Control Software

For Schools Only

EL-FCSE50AVR	Flowcode SE Site Licence (includes PIC & AVR)	499.00
For Colleges & Universities		
EL-FC6AC01NEXXX	Flowcode V6 Professional Academic, Single User. <i>Please specify PIC, AVR, ARM or DSP when ordering.</i>	249.00
EL-FC6AC10NEXXX	Flowcode V6 Professional Academic, 10 User. <i>Please specify PIC, AVR, ARM or DSP when ordering.</i>	799.00
EL-FC6AC50NEXXX	Flowcode V6 Professional Academic, 50 User. <i>Please specify PIC, AVR, ARM or DSP when ordering.</i>	1,749.00
For Non Education		
EL-FC6CM01NEXXX	Flowcode V6 Professional Commercial, Single User. <i>Please specify PIC, AVR, ARM or DSP when ordering.</i>	299.00

Simple Microcontroller Circuit Kits



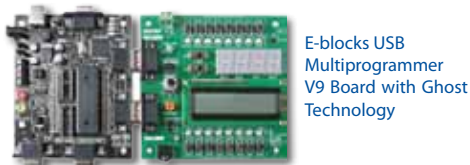
This course introduces students to the basic principles of microcontroller circuit construction and prototyping using a breadboard and a few simple electronic components. The board is powered and programmed via USB. Customers can order the full kit or board only. A free PDF course is included.

N.B. Requires Flowcode SE Software and USB Cable

Prices £* *See Pricing Information on page 2

EL-SE3829	Simple Microcontroller Circuits Pack. Includes USB Prototype Board and Components.	30.00
EL-HP4829	USB Prototype Board	22.00
EL-HP4820	Pack of 20 USB Prototype Boards	350.00

PICmicro Development Centre



E-blocks USB Multiprogrammer V9 Board with Ghost Technology

This course is based on our Development centre which consists of a USB PICmicro multiprogrammer and a Development board with pre-wired LEDs, switches, sensors and displays. A 50 hour online course (with assessment) is available free of charge. When combined with Flowcode the Ghost feature gives on-board instrumentation (multi channel oscilloscope, logic analyser, communications decoder etc.) and in-circuit debug and test facilities.

N.B. Requires Flowcode SE Software

Prices £* *See Pricing Information on page 2

EL-HP4832	PICmicro Development Centre. Includes EB006 PICmicro multiprogrammer, EB083 Combo Board, Power Supply, USB Cable and Free Online Course.	99.00
EL-HP7631	PICmicro Development Centre with Protective Plastic Enclosure. Includes EB006 PICmicro multiprogrammer, EB083 Eblocks Combo Board, Power Supply, USB Cable and Free Online Course.	115.00

Optional Extras



EL-EB014	E-Blocks Keypad Board	12.75
EL-EB084	E-Blocks GLCD Board with TFT based graphical display	33.55

A full range of "add on" boards like these is available. Please ask for details.

Design and Make Electronics Products



This course is based on our USB project board which includes a microcontroller and a motors driver chip. The solution provides a framework to allow students to first investigate the design of electronic products and then to design and manufacture a project of their own. The curriculum first guides students through a number of pre-built designs and pre-designed SolidWorks projects. Students then undertake a design brief to develop an electromechanical project of their own. Customers can order the full kit or board only.

N.B. Requires Flowcode SE Software and USB Cable

Prices £* *See Pricing Information on page 2

EL-SE4855	Design and Make Electronics Product Pack. Includes USB Project Board and Components.	60.00
EL-HP1110	USB Project Board	18.00
EL-HP9954	Pack of 20 USB Project Boards	325.00

Formula AllCode Robotics



Can be used with:

- Raspberry Pi
- Android
- iPhone
- Windows & MacOS

EL-RB4191



EL-RB7971



EL-RB7240



EL-RB7518

Formula AllCode is a complete robotics course consisting of a high specification robot buggy, a course and a range of accessories that present learning activities for students. The course includes a range of activities with varied levels of difficulty; from flashing an LED through to maze solving. Programs written in Flowcode or C can be downloaded to the robot to make it behave autonomously. The AllCode robot can also be used as a Bluetooth connected slave and controlled from computing platforms such as Android, MacOS, Windows or Raspberry Pi using the API (Application Programming Interface) provided.

Prices £* *See Pricing Information on page 2

EL-RB4191	Formula AllCode Standard Kit. Contains 1 buggy, 1 USB cable plus free downloadable training course.	149.00
EL-RB7971	Formula AllCode Deluxe Kit. Contains 1 buggy, 1 USB cable, set of maze walls, activity mat, carry case plus free downloadable training course.	199.00
EL-RB7240	Formula AllCode Standard Class Set. Contains 5 buggies, 2 USB cables, set of maze walls, activity mat plus free downloadable training course.	675.00
EL-RB7518	Formula AllCode Deluxe Class Set. Contains 10 buggies, 4 USB cables, set of maze walls, activity mat plus free downloadable training course.	1,275.00

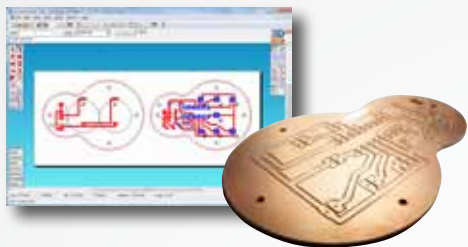
Optional Extras

EL-RB8962	Set of Formula AllCode Maze Walls. Contains a desktop mounted maze wall kit that can make a 4 by 4 cell maze for problem solving and competitions.	45.00
EL-RB8975	Maze Mat for Formula AllCode. This double-sided activity mat includes a line following challenge, a grid challenge as well as basic technical information on the AllCode buggy.	5.00

Printed Circuit Board Manufacture

Guillotines, Lightboxes & Drill

CAD/CAM PCB Manufacture



PCB Design and Manufacture

TechSoft 2D PCB software (see pages 14-15) provides a student-friendly means to design circuit boards of almost any complexity. The output side of the package is (in effect) a fully-featured application in its own right and offers three PCB production options.

Printing Artwork

Output to a printer will provide the necessary 1:1 scale artwork needed for UV exposure and photo-etching. Tracks and pads will automatically be solid-filled in black and inverted for the solder layer.

Self-Adhesive PCBs

Stika and CAMM 1 knife-cutting machines (see pages 33-35) will happily cut self-adhesive 'Cutronics' copper foil. Output from 2D PCB will produce an accurate knife-cut track layout that can be peeled and stuck to a suitable substrate.

Engraving PCBs

Isolation engraving is well-proven for commercial PCB prototyping and has many benefits in education. Output from 2D PCB automatically inverts the design and creates a tool path around and between each pad and track. Any of TechSoft's CNC milling machines (see pages 60-67) will quickly engrave copper-clad board to isolate each track, cut the board to profile and drill precisely at pad centres.

UV Exposure Light Boxes



These cost-effective units enable controlled UV exposure of PCB artwork onto pre-sensitised copper-clad board. Both feature a pressure pad in the lid which, when clipped shut, keeps the artwork in close contact with the board for faithful reproduction of intricate designs. Operation could not be simpler. Once the laminate and artwork are in place, exposure time is set on the control panel and exposure is stopped when the time is up.

Specifications	LV202E	LV204
Maximum Board Size:	229 x 159mm	356 x 260mm
UV Source:	2 x 8W	4 x 15W
Timer:	Mechanical 0-6 mins	Digital 0-500 seconds
Weight:	4kg	14kg
Dimensions:	420(W) x 175(D) x 90(H)mm	515(W) x 400(D) x 120(H)mm
Power Requirements:	240V, 13A Socket	
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect	

Prices £*		*See Pricing Information on page 2
AR-LIGHTBOX7	UV Exposure Light Box LV202E	149.00
AR-LIGHTBOX6	UV Exposure Light Box LV204	294.00

Guillotines



These powerful guillotines provide the safest and most accurate means of trimming PCB laminate to size. Cutting with a guillotine avoids harmful dust, rough edges and blunted blades that result from sawing – especially when working with modern epoxy-glass boards. Safety is ensured by heavy Perspex blade shields and a safety latch to prevent inadvertent operation. Both feature a recessed rule on the bed which aids dimensional accuracy and helps secure the workpiece.

Specifications	DM9000	DM9001
Cutting Capacity:	203mm	305mm
Thickness Capacity:	Plastics 2mm, PCB Laminate 2mm, Aluminium 1.6mm	
Weight:	6kg	8kg
Dimensions:	140(W) x 335(D) x 575(H)mm	245(W) x 440(D) x 670(H)mm
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect	

Prices £*		*See Pricing Information on page 2
MM-GUILLOTINES5	8" 200mm PCB Guillotine (DM9000)	250.00
MM-GUILLOTINE6	12" 305mm PCB Guillotine (DM9001)	329.00

Dremel PCB Drilling Station



A complete package for PCB drilling featuring a Dremel DM403 variable speed drill, three carbide bits and a robust stand. The stand adjusts to allow up to 100mm clearance below the collet and has a cam-operated lever to provide smooth control of the drilling action. The operating lever can be swapped for left or right hand operation. A robust nylon case and dependable sleeve bearings will ensure long life and quiet operation.

Specification	
Drilling capacity:	1/8" Collet (0.8, 1.00, 1.2mm TC bits supplied)
Spindle Speed:	10,000-33,000rpm (Variable)
Spindle Travel:	15mm
Spindle Height above Table:	80 - 100mm adjustable
Motor:	125W
Weight:	0.45kg (drill only)
Dimensions:	230 x 150mm (stand baseplate)
Power Requirements:	240V 1A
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £*		*See Pricing Information on page 2
MM-DRILLPCB3	Dremel Drilling Station (Includes a DM403 variable speed Dremel Drill, Stand and 3 Tungsten Carbide Drill Bits)	170.00

Pneumatic, Electronic & Control Tech. Trunking

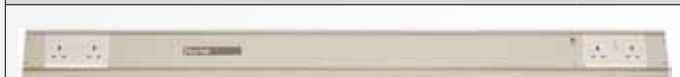
This trunking is modular and designed to mix and match types together into continuous runs, including corner sections using joining brackets. The rugged steel constructed body and fascia panel is assembled with tamper proof screws requiring a dedicated driver (supplied).



For workstations see page 192

Prices £*

*See Pricing Information on page 2



MP Trunking includes 2 x twin 13A switched sockets internally wired.

SF-TRUNKMP12	MP Trunking 1200mm	113.00
SF-TRUNKMP15	MP Trunking 1500mm	123.00
SF-TRUNKMP18	MP Trunking 1800mm	134.00



MPELV Trunking includes 2 x twin 13A switched sockets internally wired; key switch controlled low voltage facilities being a fixed 5 volt and stepped 5,9,12 and 15V DC dual rail supply.

SF-TRUNKMPELV12	MPELV Trunking 1200mm	462.00
SF-TRUNKMPELV15	MPELV Trunking 1500mm	477.00
SF-TRUNKMPELV18	MPELV Trunking 1800mm	498.00



MPLV Trunking 1200mm includes 2 x twin 13A switched sockets internally wired; key switched and short circuit protected low voltage facilities being a fixed 5 volt dc supply and dual rail +/- 2-15V variable supply set by reading the accurate analogue volt meter.

SF-TRUNKMPLV12	MPLV Trunking 1200mm	508.00
SF-TRUNKMPLV15	MPLV Trunking 1500mm	528.00
SF-TRUNKMPLV18	MPLV Trunking 1800mm	549.00

Accessories

SF-TRUNKOCORN1	Corner Trunking Unit 800mm for SF-TRUNKMP/MPELV/MPLV	154.00
SF-TRUNKOCORN2	Corner Trunking Unit 1000mm for SF-TRUNKMP/MPELV/MPLV	164.00
SF-TRUNKOJB	Joining Bracket for SF-TRUNKMP/MPELV/MPLV	8.75
SF-TRUNKOENDC	Endcap for SF-TRUNKMP	7.00
SF-TRUNKOFLYP	Flying Lead and Plug for SF-TRUNKMP/MPELV/MPLV	18.00

PECT Trunking Extras



SF-TRUNKOS11



SF-TRUNKOCA1



SF-TRUNKONS

Prices £*

*See Pricing Information on page 2

SF-TRUNKOS11	24V Soldering Iron Facility (provides 2 soldering iron sockets) for SF-TRUNKMP/MPELV/MPLV	*103.00
SF-TRUNKOCA1	Pneumatic Check Unit (provides 2 compressed air outlets) for SF-TRUNKMP/MPELV/MPLV	*52.00
SF-TRUNKONS	RJ45 Network Socket for SF-TRUNKMP/MPELV/MPLV	*21.00

*Must be ordered with trunking

Solder Fume Extraction Trunking



The fume extraction trunking fits under all of the P.E.C.T. trunking units including corner sections and attaches end to end. The system is designed to work with the 24V soldering iron facility where soldering irons are fitted with a tip extraction accessory which plugs into the face of the system.

Power Requirements: 240V 5A

Prices £*

*See Pricing Information on page 2

SF-SOLDER12	Nortek Solder FumeTrunking 1200mm	113.00
SF-SOLDER15	Nortek Solder FumeTrunking 1500mm	118.00
SF-SOLDER18	Nortek Solder FumeTrunking 1800mm	129.00
SF-SOLDERCORN1	Nortek Solder FumeTrunking Corner 800mm for SF-SOLDER12/15/18	139.00
SF-SOLDERCORN2	Nortek Solder FumeTrunking Corner 1000mm for SF-SOLDER12/15/18	149.00
SFS-TRK-EC1	End Cap for SF-SOLDER Trunking with hole for pipe	7.50
SFS-TRK-EC2	Plain End Cap for SF-SOLDER Trunking	5.90
SFS-TRK-CAP1	Solder Fume Extraction Cap	11.95
SFS-TRK-EXTJ2	Extraction Jointing Plates (one pair)	7.10

For a Solder Fume Extraction Unit which connects directly to the Solder Fume Trunking, see page 183.

24V Soldering Irons with Tip Extraction Kit

These low-voltage soldering irons are every bit as effective as mains voltage versions, but provide the ultimate in security for the user. The 24V supply ensures electrical safety, and a steel extraction tube removes fumes from within a few millimetres of the work. Lightweight flexible tubing is used to carry fumes away to an extraction port. The power cable and extraction tube are clipped together for tidiness and prevent work being impeded.

These soldering irons will be ideal for use with the Solder Fume Extraction Trunking and either MPLV or MPELV trunking fitted with SF-TRUNKOS11 24V outlets.



Prices £*

*See Pricing Information on page 2

MM-SOLDIRON1	24 volt Soldering Iron on Stand with Extraction Conversion Tubing	51.00
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Pneumatic Air Compressor

A fully-regulated industrial compressor to deliver the required consistent air pressure to trunking fitted with SF-TRUNKOCA1 pneumatic check valves. The compressor is extremely quiet in operation and can be housed in either the mobile or fixed cupboards listed.



Prices £*

*See Pricing Information on page 2

MM-COMPRESSOR3A	Bambi BB24V Compressor (0.5hp, 50 litres/min, receiver 24 litres, oil lubricated)	420.00
SF-CB18B	Workstation Compressor Cupboard	303.00
SF-CB18	Mobile Compressor Cupboard	395.00

Etch Tanks, Labstations & Rota-Sprays

Single Etch Tank



A single-function tank for PCB etching where washing and developing (if needed) can safely be dealt with manually. The tank is thermostatically controlled and air-agitated for optimum effect, and the process is controlled via a splash-proof front control panel with neon indicators. The inner tank is a heavy duty one-piece moulding, so leaks are eliminated and any risk from harmful chemicals is minimised. Boards are simply loaded into a mesh basket and processed at a time and temperature to suit the chemical being used.

Specification	
Maximum Board Size:	320(W) x 260(D)mm
Chemical Draining:	Two siphons provided
Weight:	6kg
Dimensions:	180(W) x 525(D) x 380(H)mm
Power Requirements:	240V, 13A Socket
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £*		*See Pricing Information on page 2
MM-ETCHTANK3	PCB Etching, PA104 Bubble Etch Tank	285.00

Labstation



These five-tank processing units bring all the necessary processing steps together into a single free-standing unit. The one-piece top includes a moulded sink with hot and cold supply. The three processing tanks are each separated by Spray Wash so a typical sequence would be Develop > Spray Wash > Etch > Spray Wash > Tinning. The third tank could be used for Resist Strip instead, but this is easiest done in the sink using a SN120 strip applicator. Two Labstation sizes are

available and both can be purchased with a starter pack which gives a 25% saving on initial chemical costs.

Specifications	PCB500S Labstation	PCB520S Labstation
Maximum Board Size:	320 x 260mm	520 x 320mm
Weight:	70kg	80kg
Dimensions:	1190(W) x 625(D) x 825(H)mm	
Power Requirements:	240V, 13A Socket	
Services:	Hot and cold water feed via the standard washing machine -type hoses (provided). Drain via standard 32mm push-fit connectors.	
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect	

Prices £*		*See Pricing Information on page 2
MM-ETCHTANK4	PCB 500S Labstation (10" x 12")	1,823.00
MM-ETCHTANK4P	PCB 500S Labstation (10" x 12") c/w Chemical Starter Kit	1,888.00
MM-ETCHTANK7	PCB520S Labstation (12" x 18")	1,987.00
MM-ETCHTANK7P	PCB520S Labstation (12" x 18") c/w Chemical Starter Kit	2,065.00

Tri Etch Tank Unit



This convenient desk-top unit combines Develop, Wash and Etch facilities to produce solder-ready PCBs following UV exposure. The Develop and Etch tanks are thermostatically controlled and air-agitated for optimum effect. Each process is controlled via the splash-proof front control panel. Boards are simply loaded into a mesh basket and moved in the sequence: Develop > Spray Wash > Etch > Spray Wash. Each tank is a heavy duty one-piece moulding so leaks are eliminated and any risk from harmful chemicals is minimised. The unit has facilities at the rear for standard cold-water and drain connections.

Specification	
Maximum Board Size:	320(W) x 260(D)mm
Chemical Draining:	Two siphons provided
Weight:	10kg
Dimensions:	400(W) x 525(D) x 380(H)mm
Power Requirements:	240V, 13A Socket
Services:	Domestic-type cold water feed valve & drain
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £*		*See Pricing Information on page 2
MM-ETCHTANK1	PCB Etching, PA310 Tri-Tank Unit	595.00

Rota-Spray

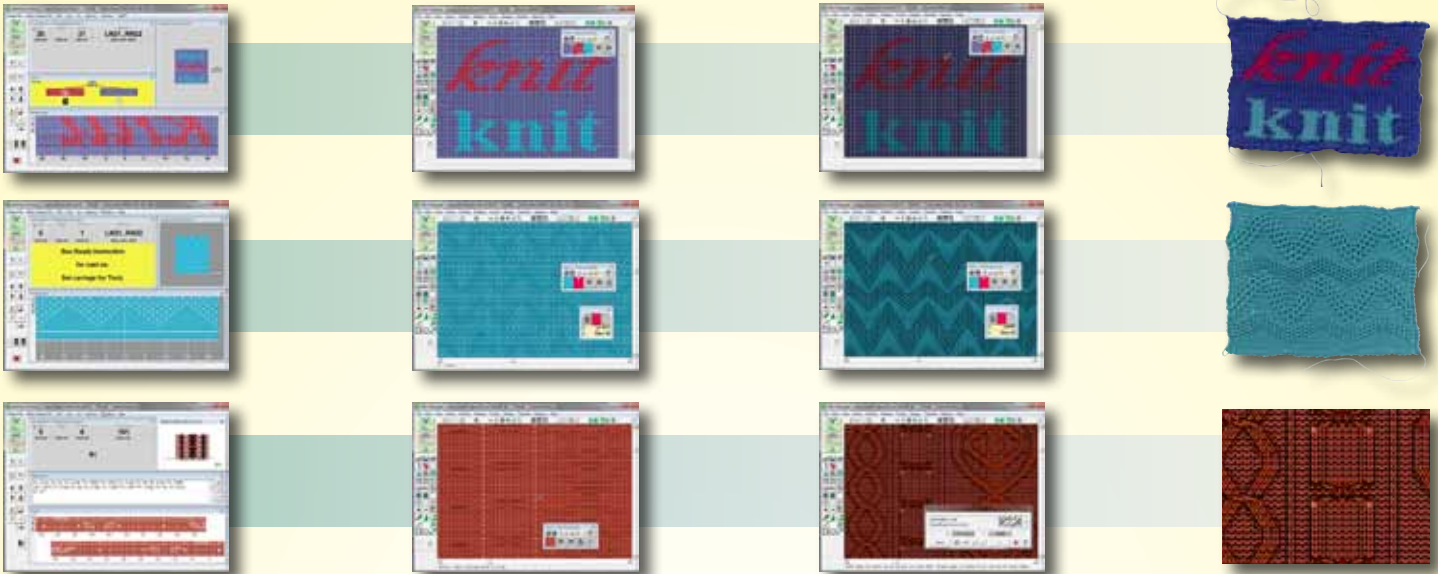


Rota-Spray uses the same chemistry as bubble-etch tanks, but sprays heated etchant onto the copper at high pressure, which results in fully etched PCBs in 90 seconds or less. A spray wash chamber is sited alongside so production is a clean and rapid process. In addition, the Rota-Spray Plus model has an unheated Develop chamber to enable an efficient Develop > Wash > Etch cycle in one unit. The chamber sides are clear so the process can be closely monitored at all stages reducing the chance to over-develop or over-etch. The drop-in PCB holder can support multiple boards of different sizes and is fully washed between each chamber - so eliminating cross-contamination of chemicals.

Specifications	Rota-Spray	Rota-Spray Plus
Maximum Board Size:	305 x 254mm	
Weight:	29kg	35kg
Dimensions:	475(W) x 500(D) x 650(H) mm	540(W) x 500(D) x 650(H) mm
Power Requirements:	240V, 13A Socket	
Services:	Cold feed via standard 3/4" BSP washing machine hose. Drain via 40mm compression 90 degree bend. Both supplied.	
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect	

Prices £*		*See Pricing Information on page 2
MM-ETCHTANK6	Rota-Spray Spray Etching Machine (Etch/Spray Wash)	1,117.00
MM-ETCHTANK5	Rota-Spray Plus, Spray Etching Machine (Develop/Spray Wash/Spray Etch)	1,288.00
MM-ETCHTANK5A	Base Unit for MM-ETCHTANK5/6	97.00

DesignaKnit8



User Friendly, Knitting Software

DesignaKnit 8 Complete for Windows is powerful CAD/CAM software for draughting knitwear, designing stitch patterns in colour and/or texture and converting photographs and other graphics to stitches. It is an ideal tool for all designers of hand or machine knit projects. Using the SilverLink 5, patterns can be downloaded in real time to all Silver Reed electronic machines and templates created for punch card machines.

Original Pattern Drafting

Design projects from scratch, or customize and adapt shapes from the Standard Garment Styler.

Stitch Designer

Design your own patterns using a range of tools and effects, or use the Graphics Studio to convert images and photos into stitch patterns.

- Work in yarn colours and/or stitch textures, including cables
- Use Machine Smart Symbols to control slip, tuck and other machine textures
- Use Hand Knit Smart Symbols to generate editable text pattern instructions
- Preview fabric texture
- Use custom brushes and fills
- Check for pattern errors according to knit method
- Print charts, diagrams, templates and text - all of which can be exported via the Windows clipboard
- Lace Tool (optional add-on) for use with the Silver Reed Lace Carriage. Allows you to design the finished pattern. DesignaKnit will work out the separation of the transfer rows.

Integrate Drafted Shapes with Stitch Patterns

Place the pattern blocks onto the stitch pattern and drag with the mouse, or use the cursor keys for fine placement control.

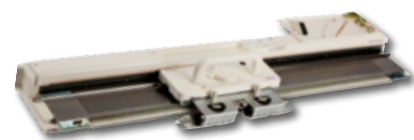
- Cut out and preview results
- Check for pattern mismatches

Interactive Knitting

Using the SilverLink 5 for electronic machines, download the pattern and follow the colour and shape instructions as you knit. (The ScreenLink can be used to access these features with non-electronic machines)

- Preview yarn setup and colour changes
- With the Lace Tool add-on, the DesignaKnit downloads the separated pattern and tells you which carriage to use and at what setting for each pass.
- Listen to instructions and alerts via your sound system

Knitting Machine



The SK830 and SK840 models are part of the Silver Reed Modular Electronic Knitting System. When combined with DesignaKnit 8 software, they offer almost unlimited scope for unique fabric creation with high production speed. The SK830 features 250 needles at 3.6mm pitch so will knit fine fabric using up to 4-ply yarn. The SK840 uses 200 needles and a standard 4.5mm pitch and will knit up to a light double-knit yarn. A SilverLink 5 device will be needed to transfer files from the PC.

Specifications

Needle Pitch:	4.5mm, 5.6 gauge (SK840) 3.6mm, 7 gauge (SK830)
No. of Needles:	200 (SK840), 250 (SK830)
Stitch Types:	Stockinet, Fair Isle, Tuck, Slip, Punch Lace, Weaving, Plating, Motifs
Weight:	13kg (SK840), 14kg (SK830)
Dimensions:	205(W) x 1110(D) x 98(H)mm

Prices £*

*See Pricing Information inside front cover

Knitting Machines

MM-KNITMACH1	Silver Reed SK840 Standard Gauge Knitting Machine	1,015.00
MM-KNITMACH2	Silver Reed SK830 Fine Gauge Knitting Machine	1,210.00

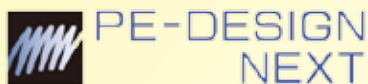
Software:

	Standard (ex VAT)	*Education Only
SilverLink 5 for all Silver Reed Electronic Knitting Machines. (Links the PC to the knitting machine. The interactive knitting section of DesignaKnit software is used to transfer the pattern, via the Silver Link 5 to the knitting machine) KS006	165.00	165.00
DesignaKnit 8 Complete. Software for MM-KNITMACH1/2. Available to educational establishments only. KS001	249.00	199.00
DesignaKnit 8 HandKnit. KS004	99.00	80.00
Extra Licence for DesignaKnit (per user) KS005	25.00	20.00

*These products are subsidised for UK bona-fide educational establishments.

Computerised Embroidery

brother PE Embroidery Software



For Education Use

Creating the Design

PE Design Next has built-in libraries of motifs, borders and fonts. These ready-to-embroider designs can be edited and arranged to provide the simplest and most direct route possible for students to produce 'custom' designs for output to any Brother machine.

For truly original design work, PE Design Next accepts bitmap images from scanned or downloaded sources, including original design work from 2D Design V2 (see page 12), and transforms this into a stitched output. It provides comprehensive creative options to edit and configure the desired embroidered effect.

Converting To Stitches

Create your image in 2D Design, copy it as a bitmap and paste it into PE Design Next.



The embroidery software then uses the Auto Punch feature to analyse the image and convert it into blocks of colour. You can change how many blocks are used, which to omit and also the conversion sensitivity.



Each colour block used will be embroidered and you can assign stitch type, stitch density, and stitch angle to each area of the block. At any stage you can display a realistic preview of how it will look when embroidered and keep adjusting stitch type and colours until the right effect is achieved.



It is easy to combine the library of images and fonts with your original design to create a professional looking embroidered logo.



Machine Applique

Choose how you wish a design to look – will it be completely stitched or turned into an applique?



Create stitched effects using the programmable fill stitch option.



Use the Applique wizard to effortlessly create machine appliques from your design.



Applique fabric is held in place during stitching using self-adhesive double sided stabiliser (see page 105)



Editing

Older students may wish to use the extensive editing features that allow for customised placement and arrangement of motifs in various formations.

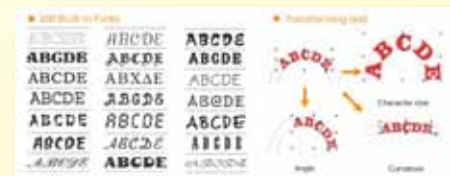


Hoop sizes can be selected and changed at any stage of the designing ensuring that the end design is exactly the correct size before outputting to any Brother machine – hoop sizes can be up to 360 x 360mm depending on model of machine.



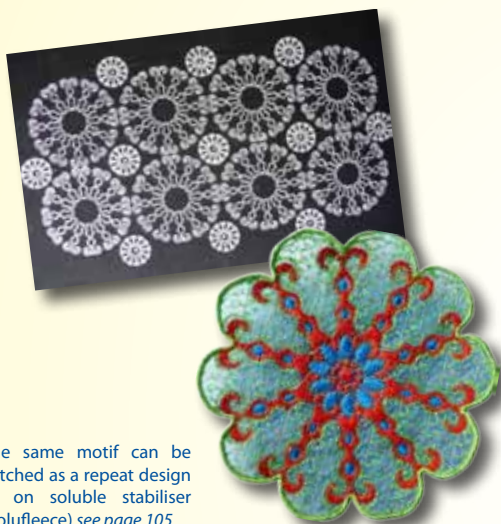
Stitching features for more expressive embroidery

Enhanced lettering features allows greater creativity when designing logos



Why Choose PE Design Next for Education?

- Choose how you want your students to use it – ideal for beginner level but has the potential to extend the brightest students across all age ranges and key stages, including university level.
- Link to 2D Design V2 by allowing students to create their own original artwork and copying it across to PE Design Next. This will cut down on bottlenecks that occur when embroidery software is only a single licence.
- Outputting the designs is simple – either by USB data key directly into the machine or via cable linked to the computer. All designs can be saved as a .pes file for future use.
- PE Design Next can be used across all Brother machines.
- Take advantage of the exclusive offer negotiated with Brother by TechSoft. Discounted sets of PE Design Next are now available, making it easier for the management of group work.



The same motif can be stitched as a repeat design or on soluble stabiliser (Solufleece) see page 105

PE Design Plus 2

PE Design Plus 2 is very simple to use and default settings will give good results for simple designs. Custom settings are few but individually quite powerful and a maximum embroidery size of 200 x 300mm is available for use. It is possible to create original designs in 2D Design V2 and copy them into PE Design Plus 2. Particularly suited to younger students or where designs may consist predominantly of text and basic images – which can be added to from the library of borders, shapes and motifs together with the 35 different fonts available. Single user licence only available.



PE Design 10

PE Design 10 includes all the functionality of PE Design Next but adds significant new tools to provide a powerful platform for students needing industry specific software with comprehensive creative options. New fonts and additional in-built designs now provide a total of 130 fonts and over 1000 design elements for direct use or for combining, editing and customising. New features include chain stitch, net fill stitch and multiple stitch direction options. A new fabric selector automatically adjusts the sewing attributes for your design based on fabric selection. Software security is now provided by a convenient, small, USB dongle device.



The Cutwork Advantage

Cutwork provides a hardware upgrade for PR-655, PR-650E, PR-1050X and PR-1000E machines (see page 98), together with a software upgrade for PE Design Next. With Cutwork, four tiny blades replace four of the needles. Within the Cutwork output routine, these can be programmed to cut the fabric before or after any embroidery. The technique could be simply to provide CNC fabric cutting, to embroider and cut-out applique patches, or to embroider 'pierced' designs for broderie-anglaise effects.

Software Information

Single License

Each license of PE Design Next provides a stand alone card reader dongle.

Minimum Hardware Requirements

Windows XP / Vista / 7 / 8 / 10

Microsoft recommended minimum hardware specification advised

USB Port

Software Information

Single License

PE Design Plus 2 is a single license with a USB dongle.

PE Design 10 is a single license with a USB dongle.

Minimum Hardware Requirements

Vista / 7 / 8.1 / 10

Microsoft recommended minimum hardware specification advised

2 x USB Ports

Prices £*

*See Pricing Information inside front cover

Special Offer - PE Design Next License Packs

These special licence packs are available exclusively from TechSoft. They represent great value for money and extend software access for students where multiple copies are needed in the classroom teaching environment.

TM-EMB-PEDES3	PE Design Next Set of 3 Licences	250.00
TM-EMB-PEDES5	PE Design Next Set of 5 Licences	415.00
TM-EMB-PEDES10	PE Design Next Set of 10 Licences	795.00

Prices £

(See inside front cover)

Standard (ex VAT)

*Education Only

Single Needle Embroidery Machines

PE Design Plus 2 Single Licence <i>TM-EMB-PEDESPLUS2</i>	290.83	204.00
PE Design 10 Single Licence <i>TM-EMB-PEDES10</i>	832.50	583.00
Brother Cutwork Kit for PR-1000E/PR-655/ PR-650E <i>TM-EMB-CWKIT1</i>	250.00	250.00

* Brother subsidise some of their products for UK bona-fide educational establishments. For standard pricing including VAT, please see www.sewinginnovations.co.uk

Computerised Embroidery

brother Multi-Needle Embroidery Machines



Compact, User Friendly, Computerised Embroidery System

There are plenty of ways that CAD/CAM can be included in textiles work. Laser cutting and engraving, sublimation and applied vinyls are just a few, but embroidery has to be an obvious one. Brother's embroidery machines are built on a rigid metal chassis and feature computerised control systems so they are easy to use and have an up to the minute feel and look. Brother has a long-standing reputation for making high-quality sewing and embroidery machines for commercial and domestic markets, so you can be sure of reliability, long life and excellent back-up.

Multi-Needle Systems

The Brother PR-655 and PR-1050X machines are compact multi-needle machines that offer rapid output and large-scale embroidery onto almost any material. Because there is no need to change threads, it is possible to set-up the bobbins and achieve commercial scale production almost immediately. This could well provide a streamlined solution for outputting whole-class sets of work, or clearly give a huge advantage for enterprise projects.

Why choose a multi-needle embroidery machine?

The Brother range of multi-needle embroidery machines provide a reliable and easy to use solution for embroidery needs both in education and small businesses. It is ideal for bringing industrial practice into the classroom and linking into Business Enterprise activities and whole school promotions.

The capacity for up to 1000 stitches per minute allows faster throughput of work and a number of designs could be grouped together in the larger hoops so that a number of pupils' work can be stitched in one go. Thicker materials can be worked on easily and the ever increasing range of hoops allows awkward shapes and spaces to be accessed. The large colour LCD touch screen makes it easy to navigate through the intuitive menu and designs can be customised at this stage, eg., colour changes, addition of text, pattern rotation. Should a thread break or run out, the machine will stop and tell you and it is easy to go back up to 100 stitches at a time, so mistakes can be easily rectified if they occur. Run out of time and design is still incomplete? Simply switch off the embroidery machine and leave the fabric hooped in place. Next time the machine is switched on it will remember where it stopped and continue, giving you peace of mind for those larger stitched projects.

Designing for CNC Embroidery

PE Design Next provides the ideal platform for students to create designs for the larger hoop sizes available for Brother PR-series multi-needle machines. Designs can be derived from memory cards or extensive on-board font and motif libraries - PE Design Next allows these to be combined, edited and configured to give almost unlimited creative options. Stitch pattern, density and direction can all be configured in PE Design Next and these details are often as important as the original design in achieving a desired effect. Designing in PE Design Next with direct output also allows the finest possible resolution of embroidered image to the original design. The speed and operational simplicity of Brother PR-series machines makes it simple and efficient to take advantage of these enhanced design capabilities. PE Design Next can also be used to simply 'process' a design created in 2D Design, scanned from a sketch or downloaded as an image. This may prove a useful facility for younger students taking their first steps with digital embroidery design and output.



Computerised Embroidery

brother Multi-Needle Embroidery Machines

Brother PR-655

Ideal for Education



The PR-655 is a professional six needle embroidery machine designed for fast commercial production. It achieves real time savings by minimising down time for set-up and thread changing. In education, a PR-655 is the ideal machine for students to experience a production environment and, because job turn-around is so fast, is a huge advantage if an entire class-set of projects needed to be worked.

Specification

Max. Embroidery Area: 300 x 200mm
 Embroidery Speed: 400-1000 Stitches per min
 Embroidery Designs: 25 built-in & 28 fonts
 Needle Thread & Cut: Automatic
 Touch Screen: Large, high resolution (with on-screen editing & video instructions and tutorials)
 Additional Functions: Appliqué
 Detection Systems: Thread break & hoop size
 Interface: USB & Memory card slot
 Weight: 37kg
 Dimensions: 818(D) x 758(H) x 926(W)mm

What's Included

Hoop Kit - A wide range of embroidery hoops.
Tool Kit - A comprehensive set of tools.

Warranty

UK Mainland: 1 Year On-Site
 Elsewhere: 1 Year Return and Collect

Prices £ (See inside front cover)

	Standard (ex VAT)	*Education Only
Brother PR-655 TM-EMB-PR655	4,999.17	4,250.00
Cap Frame TM-EMB-PR650CAP	715.83	502.00
Cylinder Frame TM-EMB-PR650CYL	999.17	700.00
Brother PR-655 with Cap Frame TM-EMB-PR655WCAP	5,562.50	4,729.00
Brother PR-655 with Cylinder Frame TM-EMB-PR655WCYL	5,807.50	4,937.00
Brother PR-655 with Cap & Cylinder Frame TM-EMB-PR655WCAPCYL	6,165.83	5,241.00
Starter Set (62 Satin 300m, 144 pre-wound 120m lower bobbins + 19 sheets of A4 Mixed Stabiliser & Interfacing) TA-EMB-SST10	150.00	150.00
PR Clamp Frame 45x24mm. Forward Facing (inc. mounting arm) TMP-EMB-PRCLAMP1	208.00	208.00
PR Clamp Frame 45 x 24mm. 45° Left & Right (exc. mounting arm) TMP-EMB-PRCLAMP2	208.00	208.00

Essential Software

PE Design Plus 2 / Next / 10 (page 98)

Recommended Software

2D Design V2 (page 12)

Brother PR-1050X



The 10-needle PR-1050X sets new standards for accuracy, scale and speed, and features class-leading technology. Auto needle-threading, simple eyelet threading and LED technology for spool management, makes set-up rapid and stress free. The LCD display gives an 'eye onto the needle area' via a built-in camera and this, makes it easy (or even automatic) to position work for precise needle-drop.

Specification

Max. Embroidery Area: 360 x 200mm
 Embroidery Speed: 400-1000 Stitches per min
 Embroidery Designs: 140 built-in & 37 fonts
 Positioning: Easy with camera sensor
 Intelligent Thread: InnovaChrome™ colour selection
 Needle Thread & Cut: Automatic
 Touch Screen: Large, high resolution (with on-screen editing & video instructions and tutorials)
 Additional Functions: Appliqué
 Detection Systems: Thread break & hoop size
 Interface: USB & Memory card slot
 Weight: TBC
 Dimensions: TBC

What's Included

Hoop Kit - A wide range of embroidery hoops.
Tool Kit - A comprehensive set of tools.

Warranty

UK Mainland: 1 Year On-Site
 Elsewhere: 1 Year Return and Collect

Prices £ (See inside front cover)

	Standard (ex VAT)	*Education Only
Brother PR-1050X TM-EMC-PR1050X	7,499.17	6,375.00
Cap Frame TM-EMC-PR1050XCAP	999.17	700.00
Cylinder Frame TM-EMC-PR650CYL	999.17	700.00
Brother PR-1050X with Cap Frame TM-EMC-PR1050XWCAP	8,249.17	7,012.00
Brother PR-1050X with Cylinder Frame TM-EMC-PR1050XWCYL	8,249.17	7,012.00
Brother PR-1050X with Cap & Cylinder Frame TM-EMC-PR1050XWCAPCYL	8,832.50	7,508.00
Starter Set (62 Satin 300m, 144 pre-wound 120m lower bobbins + 19 sheets A4 Mixed Stabiliser & Interfacing) TA-EMB-SST10	150.00	150.00

Essential Software

PE Design Plus 2 / Next / 10 (page 98)

Recommended Software

2D Design V2 (page 12)

Cutwork



The Cutwork Upgrade Kit provides four blades and software upgrades for both your PR-series machine and PE Design Next software. Using Cutwork allows fabric cutting alongside embroidery in one operation without changing needles. Cutwork can create a broderie anglaise effect and be used for cut-only or embroidered-and-cut applique patches. When used for applique, further features will pre-stitch the garment for accurate positioning before stitching down using a simple or satin stitch border.

What's Included

- Full software upgrade for PE-Design Next
- Full machine upgrade for PR-650E, PR-655, PR-1000E and PR-1050X machines
- Four colour coded Cutwork blades
- Needle plate backing plate for stability
- Set-up instructions and User Guide

Prices £* (See Pricing Information inside front cover)

TM-EMB-CWKIT1	Brother Cutwork Kit for PR-1050X/1000E/655/650E	250.00
TM-EMB-CWND1	Brother Cutwork Needle Replacement Set	54.00
TM-EMB-CWC1	Brother Cutwork Embroidery Collection	69.00

Essential Software

PE Design Next

Stands for PR Range



TMP-EMB-PRSTAND shown with machine and accessories.

Prices £* (See Pricing Information inside front cover)

TMP-EMB-PRSTAND	Brother Stand for PR Range	333.00
TF-WS3-C2	TechSoft Mobile Workstation 1400x800x850mm (c/w underbench cupboards containing in-built sockets, drawers, shelves and storage space for computer). See page 186.	1,575.00

* Brother subsidise some of their products for UK bona-fide educational establishments. For standard pricing including VAT, please see www.sewinginnovations.co.uk

See pages 106-112 for further threads and accessories

Computerised Embroidery

brother Single Needle Embroidery Machines



Low Cost, User Friendly, Computerised Embroidery Systems

Embroidery only machines allow teachers to set up a dedicated CAD/CAM embroidery area in their classroom, making the process easier to manage without the chopping and changing of machine parts necessary for dual purpose machines. All the machines have an on-board library of embroidery motifs, borders and fonts and it is possible to combine and edit these using the machine's display and control panel. The work area is generous and the LCD touch screen gives you the essential tools for positioning and editing your design, alongside further tools to adjust machine settings. Automatic needle threading and a 'drop-in' bobbin makes these operations simple for beginners, but pupils can produce highly professional results. They can develop their own ideas using 2D Design and export them into the PE Design software for stitch conversion and further editing. These can be saved to a USB memory stick so that their work can be transferred easily to any Brother embroidery machine. Embroidered designs can be added to a variety of fabrics including those with a pile such as fleece or towelling, plus lace effects can look stunning when stitched out on dissolvable stabiliser fabric.



Built-in Embroidery Designs



Built-in Embroidery Fonts



Prices £ (See inside front cover)

Single Needle Embroidery Machines

	Standard (ex VAT)	*Education Only
Brother Innov-is F440E TM-EMB-INNOVF440E	749.17	637.00
Brother Innov-is NV800E TM-EMB-INNOV800E	1,082.50	921.00
Brother Innov-is V3 TM-EMB-INNOVV3	1,665.83	1,416.00

Recommended Extras

See details of our full range of threads, accessories and materials on pages 104-110

	Standard (ex VAT)	*Education Only
Starter Set of Threads for Innov-is Embroidery Only Machines (Contains 62 satin 300m mixed colour threads, 15 white 1,100m 90wt lower thread + 19 A4 sheets mixed stabiliser and interfacing) TA-EMB-SSST8	185.00	185.00

Essential Software

PE Design Plus 2 / Next / 10 (page 99)

Recommended Software

2D Design V2 (page 12)

What's Included

	F440E	NV800E	V3
Soft Dust Cover:	Yes	Yes	Yes
Handy Wallet of Tools:	Yes	Yes	Yes
Embroidery Hoops:	1 (160 x 260mm)	1 (160 x 260mm)	2 (300 x 180mm & 100 x 100mm)



Warranty

UK Mainland & Ireland: 3 Year Return to Base
Elsewhere: 3 Year Return and Collect

Innov-is F440E



- 138 Embroidery patterns
- 11 Built-in Fonts
- 140 Border Pattern Variations
- Quick Set Drop in Bobbin & Sensor
- Upper Thread Sensor

Specifications

Embroidery Area:	180 x 130mm
Embroidery Speed:	TBC
Embroidery Designs:	138 built-in (+11 fonts)
Arm Length:	TBC
Needle Threading & Cutting:	Automatic
Bobbin Winding:	Automatic
Interface:	USB
Weight:	TBC
Dimensions:	TBC

Innov-is NV800E



- 260mm x 160mm Embroidery Area
- Colour LCD Touch Screen
- Multi Line Text Entry and Editing
- Quick-Set Bobbin
- 11 Built-in Fonts

Specifications

Embroidery Area:	260 x 160mm
Embroidery Speed:	850 Stitches per min
Embroidery Designs:	138 built-in (+ 11 fonts)
Arm Length:	190mm
Needle Threading & Cutting:	Automatic
Bobbin Winding:	Automatic
Interface:	USB
Weight:	13.1kg
Dimensions:	693(W) x 451(D) x 300(H)mm

Innov-is V3



- Large 300mm x 180mm Embroidery Area - ideal for larger projects.
- Fast 1050 Stitches per minute embroidery speed
- Large LCD Touch Screen - including on-screen editing for embroidery projects

Specifications

Embroidery Area:	300 x 180mm
Embroidery Speed:	1050 Stitches per min
Embroidery Designs:	227 built-in (+ 17 fonts)
Arm Length:	285mm
Needle Threading & Cutting:	Automatic
Bobbin Winding:	Automatic
Interface:	USB
Weight:	16.5kg
Dimensions:	825(W) x 465(D) x 470(H)mm

* Brother subsidise some of their products for UK bona-fide educational establishments. For standard pricing including VAT, please see www.sewinginnovations.co.uk

Computerised Sewing & Embroidery

brother Sewing and Embroidery Machines



Low Cost, User Friendly, Versatile Computerised Sewing & Embroidery Systems

These combination sewing and embroidery machines offer the latest in electronic control systems, a high specification and significant space saving advantage. You also, of course, get two machines for a lot less than it would cost to buy them separately. As sewing machines, they are set up and used in much the same way as their sewing-only counterparts so students will have no trouble moving between machines if one or more of these are used as part of a classroom set. All the machines have an on-board library of embroidery motifs, borders and fonts and it is possible to combine and edit these using the machine's display and control panel.



Built-in Embroidery Designs



Built-in Embroidery Fonts



Built-in Sewing Stitches



What's Included

	F480	NV2600	V5
Cover:	Hard Case	Hard Case	Hard Case
Handy Wallet of Tools:	Yes	Yes	Yes
Embroidery Hoops:	TBC	1 (160 x 260mm & 130 x 180mm)	2 (300 x 180mm & 100 x 100mm)

3 Year Warranty

Warranty

UK Mainland & Ireland: 3 Year Return to Base
Elsewhere: 3 Year Return and Collect

Prices £

(See inside front cover)

Standard (ex VAT)

*Education Only

Single Needle Embroidery Machines

Brother Innov-is F480 TM-EMB-INNOVF480	1,665.83	991.00
Brother Innov-is NV2600 TM-EMB-INNOV2600	1,665.83	1,167.00
Brother Innov-is V5 TM-EMB-INNOVV5	2,499.17	2,125.00

Recommended Extras

See details of our full range of threads, accessories and materials on pages 104-110

Starter Set of Threads for Innov-is Sewing and Embroidery Combined Machines (Contains 62 satin 300m mixed colour threads, 15 white 1,100m 60wt lower thread + 19 A4 sheets mixed stabiliser and interfacing) TA-EMB-SST9	185.00	185.00
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Essential Software

PE Design Plus 2 / Next / 10 (page 99)

Recommended Software

2D Design V2 (page 12)

Innov-is F480



- 182 Built-in Stitches including 10 button hole styles
- 138 Embroidery Styles
- SFDS (Square Feed Drive System) & Sidesways Feed
- Lettering Styles; 5 Sewing, 11 Embroidery

Specifications

Embroidery Area:	180 x 130mm
Embroidery Speed:	TBC
Embroidery Designs:	138 built-in (+ 11 fonts)
Arm Length:	TBC
Needle Threading & Cutting:	Automatic
Bobbin Winding:	Automatic
Interface:	USB
Weight:	14.8kg
Dimensions:	TBC

Innov-is NV2600



- 138 Built-in Embroidery Designs
- 133 Decorative Stitches plus 89 Utility Stitches
- Fabric Sensor System
- Automatic Needle Threader & LED lighting

Specifications

Embroidery Area:	260 x 160mm
Embroidery Speed:	850 Stitches per min
Embroidery Designs:	138 built-in (+ 11 fonts)
Arm Length:	210mm
Needle Threading & Cutting:	Automatic
Bobbin Winding:	Automatic
Interface:	USB
Weight:	18.6kg
Dimensions:	693(W) x 451(D) x 300(H)mm (Embroidery)

Innov-is V5



- Extra-Large LCD Colour Touch Screen
- Extra-Large Decorative Stitches up to 40mm
- Long Arm Length giving Extra Large Sewing Space
- 227 Built in Embroidery Designs

Specifications

Embroidery Area:	300 x 180mm
Embroidery Speed:	1050 Stitches per min
Embroidery Designs:	227 built-in (+ 17 fonts)
Arm Length:	285mm
Needle Threading & Cutting:	Automatic
Bobbin Winding:	Automatic
Interface:	USB
Weight:	16.5kg
Dimensions:	825(W) x 465(D) x 470(H)mm

* Brother subsidise some of their products for UK bona-fide educational establishments. For standard pricing including VAT, please see www.sewinginnovations.co.uk

Sewing Machines

brother Sewing Machines

Multi-functional Computerised Sewing Machines

The Innov-is range of computerised sewing machines offer simplicity without compromising on features and performance. The Start/Stop button allows sewing with or without the foot controller attached – often a health and safety issue for teachers and one less piece of equipment to keep track of. The slide speed control feature means that younger or inexperienced pupils can operate the machines with confidence and tricky areas can be stitched with precision and control. The advanced automatic needle threader is quick and simple, thus removing another obstacle for preventing pupils to work independently. The quick set, drop in bobbin makes setting up the machine easy – no more pulling up the bottom thread. The LCD screen allows you to see at a glance information about the stitch you have chosen, and the electronically controlled functions make it straightforward to adjust the stitch sizes in a much more precise and simple way. The jog dial on the Innov-is 15, 27SE and 35 machines make it quick and easy to select your required stitch, whilst the touch pad on the Innov-is 55 does the same for its wide variety of 81 stitches (plus lettering). With a 3 year warranty, these machines are an excellent choice for school use.



Drop in bobbin with easy to use thread guide



Automatic buttonhole foot for correctly sized buttonholes every time



LCD Control Panel



Stitch Selection



	No of Stitches	LCD Screen	Automatic Needle Threader	Automatic Buttonhole	Needle Position Control	Drop Feed	Speed Control	Cover	Weight	Dimensions
Innov-is 15:	16	Yes	Auto	3 Styles <i>One Step Button Holes</i>	Yes	Yes	Yes	Soft	8.3kg	520(W) x 270(D) x 430(H)mm
Innov-is 27SE:	50	Yes	Auto	5 Styles <i>One Step Button Holes</i>	Yes	Yes	Yes	Hard	8.3kg	520(W) x 270(D) x 430(H)mm
Innov-is 35	70	Yes	Advanced Auto	7 Styles <i>One Step Button Holes</i>	Yes	Yes	Yes	Hard	8.3kg	520(W) x 270(D) x 430(H)mm
Innov-is 55FE	81 <i>(excluding lettering)</i>	Yes	Advanced Auto	10 Styles <i>One Step Button Holes</i>	Yes	Yes	Yes	Hard	8.3kg	520(W) x 270(D) x 430(H)mm

What's Included

These machines all include a handy wallet of tools and either a soft or hard cover (see table above).

Warranty

UK Mainland and Ireland:
Elsewhere:

3 Year Return to Base
3 Year Return and Collect



Prices £

(See inside front cover)

Standard
(ex VAT)

*Education
Only

Single Needle Embroidery Machines

Brother Innov-is 15 <i>TM-EMB-INNOV15</i>	207.50	177.00
Brother Innov-is 27SE <i>TM-EMB-INNOV27SE</i>	290.83	248.00
Brother Innov-is 35 <i>TM-EMB-INNOV35</i>	332.50	283.00
Brother Innov-is 55FE <i>TM-EMB-INNOV55FE</i>	374.17	319.00

Recommended Extras

See details of our full range of threads, accessories and materials on pages 104-110

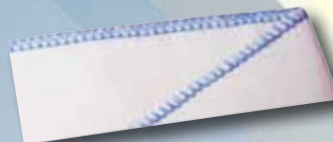
* Brother subsidise some of their products for UK bona-fide educational establishments. For standard pricing including VAT, please see www.sewinginnovations.co.uk

Low Cost, Easy to Thread Overlocker

The 3034D overlocker from Brother sews seams, trims excess fabric and overlocks raw edges all in one easy step. It features 3 or 4 thread sew-and-cut overlock stitches, an easy-to-follow colour coded thread guide and an automatic lower looper threading system. It has a free-arm / flat bed convertible sewing surface for easy control when overlocking cuffs and sleeves, saving time and producing professional results. Overlockers are essential tools for any textiles department and the 3034D model will allow great flexibility of use – it isn't just for neatening the edges of seams! Use as a 3 thread or as a 4 thread (with the extra line of stitching for a secure seam), with or without the knife and explore the possibility of rolled hems, decorative edges, flat lock and gathers. The differential feed will assist with virtually any fabric type and eliminates the wavy appearance on stretchy fabrics. It can also be used to gather finer fabrics and give a finished edge all in one operation.



Gathered edge using the differential feed



Rolled hemming



3 thread overlock 5mm



4 thread overlock



Flat lock



Make your own edging



Ideal for joining jersey fabric pieces



Easy Threading Guide

Specifications

Stitch Width:	Up to 7mm
Feed:	Differential
Knife:	Retractable
Presser Foot:	Pressure Control
Trim Trap:	Yes
Thread Twist Protection:	Yes
Built in light:	Yes for Illuminating Working Area
Weight:	8kg
Dimensions:	382(W) x 322(D) x 322(H)mm

What's Included

Instructional DVD
Dust Cover
Foot Controller
Tool Kit

3 Year
Warranty

Warranty

UK Mainland and Ireland: 3 Year Return to Base
Elsewhere: 3 Year Return and Collect

Prices £*

*See Pricing Information inside front cover

MM-OVLCK1	3034D Overlocker	*207.00
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* These products are subsidised for education and can only be supplied to UK bona-fide educational establishments.

Sewing & Embroidery Accessories

Threads

Brother Embroidery Threads

High quality embroidery thread which can be purchased in boxed sets or as individual colours (see below).

Brother Embroidery Threads - Satin



TA-EMB-BST22

TA-EMB-BST40

TA-EMB-BST12

TA-EMB-SST-B62	Starter Set of 62 Satin Thread, 300m in Labelled Box (Mixed colours)	103.00
TA-EMB-BST12	Boxed Set of 12 Satin Threads, 300m	20.80
TA-EMB-BST22	Boxed Set of 22 Satin Threads, 300m	36.60
TA-EMB-BST40	Boxed Set of 40 Satin Threads, 300m	66.60
TA-EMB-BST-COL*	Pack of 5 Reels of Satin Thread, 300m 70 standard colours. <i>Please state colour required</i>	9.15

Brother Embroidery Threads - Matt (Country Yarn)



TA-EMB-BMT21

TA-EMB-BMT40

TA-EMB-BMT21	Boxed set of 21 Matt Threads, 300m	36.50
TA-EMB-BMT40	Boxed set of 40 Matt Threads, 300m	66.50
TA-EMB-BMT-COL*	Pack of 5 Reels of Matt Thread, 300m 49 standard colours. <i>Please state colour required</i>	9.15

Brother Embroidery Threads - Metallic

TA-EMB-BET-COL*	Pack of 5 Reels of Metallic Thread, 300m 10 standard colours. <i>Please state colour required</i>	21.50
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Brother Bobbin Thread For Brother Sewing & Embroidery Machines

TA-EMB-BLT60W-5	1,100m 60wt. white thread (Pk of 5 reels)	23.30
TA-EMB-BLT60B-5	1,100m 60wt. black thread (Pk of 5 reels)	23.30

Brother Bobbin Thread For Brother Embroidery Only Machines

TA-EMB-BLT90-5	1,000m 90wt. white thread (Pk of 5 reels)	23.30
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Sewing and Overlocking Threads

The Aerofil threads are ideal for all of the Brother sewing machines and come in an assorted box of colours. The Aerolock Premium Overlocking thread is sturdy and great for neat and long lasting seams.

Aerofil Sewing and Quilting Threads

TA-EMB-SPK1	Assorted Box of 18 x 200m Threads. Various Colours.	19.75
TA-EMB-ST1-COL*	Pack of 5 Threads (400m each).	1.95

Aerolock Premium Overlock Thread

TA-EMB-OT1-COL*	Box of 4 x 2500m Reels of Overlock Thread. Available in 18 different colours.	3.35
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Speciality Embroidery Threads

Mirage Embroidery Threads For Brother PR-Range

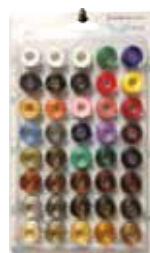
This is a spaced dyed rayon thread with contrasting tones on a generous 800m spool. Strong and easy to work with, simple designs can be transformed without the need to stop the embroidery machine in order to change colour. Available in 40 colour types.



TA-EMB-WM-COL*	800m Reel of Mirage Embroidery Thread. Available in 40 different colour types.	6.20
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Deco Bob Pre-Wound Bobbins For Brother PR-Range

These pre-wound coloured bobbins are perfect for creating embroidered effects that will be viewed from both sides, eg., working on organza or making hanging shapes. The 80 weight thread is efficiently wound onto 100m spools that fit directly into the Brother PR range of embroidery machines. There are 36 colours available to choose from.



TA-EMB-WD-PK1



TA-EMB-WD-COL

TA-EMB-WD-PK1	Pack of 40 Pre-Wound Bobbins of Deco Bob Thread, 100m each, 80wt. One of each colour + 2 White + 2 Black.	22.00
TA-EMB-WD-COL*	Pack of 12 Pre-Wound Bobbins of Deco Bob Thread, 100m each, 80wt. All same colour. 36 colours available.	7.60

Madeira Embroidery Threads

The Madeira embroidery threads can be used with all of our multi-needle embroidery machines.

Madeira Embroidery Threads For Brother Innov-is and PR-Range



TA-EMB-SST-M20

TA-EMB-SST-M20	Starter set of 20 Classic no. 40 Viscose Rayon Threads, 1000m (Mixed colours)	59.00
TA-EMB-M401*	Classic no. 40 Viscose Rayon, 1000m 299 standard colours <i>Please state colour required</i>	2.99
TA-EMB-M405*	Classic no. 40 Viscose Rayon, 5000m 299 standard colours <i>Please state colour required</i>	14.50

Madeira Pre-Wound Bobbins For Brother PR-Range

PA201	24 pre-wound disposable bobbins, white	6.50
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Madreia & Aerofil Colour Cards available - see website for details

*For choice of colours see our website at www.techsoft.co.uk/Products/TextilesMaterials. Colour cards are also available for Madeira threads.

Sample Packs

Stabilisers are essential backing materials to prevent fabric distortion and stitch problems when using machine embroidery. Interfacings are used as a stiffening layer hidden between surface fabrics - collars and cuffs are typical examples. Interfacings are (however) excellent construction materials in their own right. They can be cut, sewn, surface-decorated, folded and assembled to open up new and innovative possibilities for textiles work.

TXM-P1	Sample Pack of Stabiliser and Interfacing Materials (Contains 9 A4 sheets of Vilene Stabilisers & Interfacings, ie., one each of Vilene Stitch & Tear, Fuse & Tear, Soluble (Solufleece), Self-Adhesive (Filmoplast), Vilene S80, S133, Decovil Light & Decovil 1)	10.50
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Stabilisers

Stabiliser fabric acts as an important second layer to prevent the top fabric from distorting, puckering, catching or being pulled down into the machine. The stabiliser fabric is stretched firmly in the embroidery hoop, usually with the fabric to be worked on top. This prevents the fabric from moving or stretching during the embroidery process. Choosing the right stabiliser fabric can be a minefield. There is a huge variety of makes and types to choose from and they all profess to do different things. TechSoft have narrowed the choice down to four materials from the Vilene range - a company with an excellent reputation for reliability, good value and repeatability.

Stitch and Tear

A non-sticky stabiliser that can be used on all fabrics. Finer fabrics may require more than one layer to prevent movement. Used for all types of decorative sewing, applique and machine embroidery. Tear away loose stabiliser once embroidery is complete.

TXM11-A4-10	10 A4 Sheets Vilene Stitch & Tear Stabiliser	5.50
TXM11-9-15	15m x 900mm roll Vilene Stitch & Tear Stabiliser	33.00

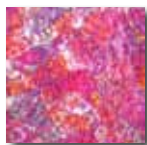
Fuse and Tear

An iron-on stabiliser that is used to back stretch or knitted fabrics or dimensionally unstable woven fabrics. Iron-on dry at a medium heat for 5 seconds. Tear off loose stabiliser after stitching.

TXM12-A4-10	10 A4 Sheets Vilene Fuse & Tear Stabiliser	4.95
TXM12-9-25	25m x 900mm roll Vilene Fuse and Tear Stabiliser	48.00

Soluble (Solufleece)

A water-soluble, non-woven stabiliser for all types of machine embroidery and other creative sewing techniques. Once stitched, it provides the necessary base-fibre to reinforce and integrate stitches to become (in effect) free-standing. Simply draw your design and free-machine or output in the usual way. After machining, simply wash out surplus material in cold or warm water. Use it in the hoop to create lace designs, or place a layer on top of pile fabrics to give a crisper finish by preventing stitches sinking into the pile.



TXM13-A4-10	10 A4 Sheets Vilene Soluble Stabiliser	5.50
TXM13-9-25	25m x 900mm roll Vilene Soluble Stabiliser	64.00

Self-Adhesive (Filmoplast)

A double sided stabiliser that is useful for machine applique. Iron the non-paper side onto your applique material. Remove the paper to reveal the tacky side and then position the applique material as required.



TXM14-A4-10	10 A4 Sheets Vilene Self-Adhesive Stabiliser	10.50
TXM14-5-15	15m x 545mm roll Vilene Self-Adhesive Stabiliser	69.50

Interfacings

These polyester based interfacings are great for painting and sublimation printing. The S80 can be cut on a knife cutter such as the CAMM 1 GS-24E as long as the shapes are simple. All four weights cut beautifully on the laser cutter - try ironing on another fabric to the adhesive side first.

Sew-in Interfacing (Vilene S80)

Polyester, firm sew-in interlining. Use for laser cutting, knife cutting, sublimation printing and embroidery. Can be dyed and painted. Decorate or use as a supportive layer.



TXM01-A4-10	10 A4 Sheets of Vilene S80	7.05
TXM01-3-25	25m x 300mm roll of Vilene S80	61.00
TXM01-9-25	25m x 900mm roll of Vilene S80	128.00

Iron-on Interfacing (Vilene S133)

Very firm and compact fusible interlining. For fabric bowls, brooches, peaks of caps as well as for creative works. Can be dyed, painted, machine stitched or laser cut or just use as a supporting layer. Excellent for 3D work.

TXM02-A4-10	10 Sheets of Vilene S133	10.50
TXM02-3-25	25m x 300mm roll of Vilene S133	89.00
TXM02-4-25	25m x 450mm roll of Vilene S133	130.00
TXM02-9-25	25m x 900mm roll of Vilene S133	241.00

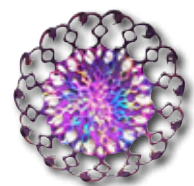
Iron-on Interfacing with a Soft Leather-Like Feel (Decovil Light)

Firm fusible interlining with a soft leather-like feel. This is tear resistant, very stable fabric yet maintains drape. Suitable for laser cutting, sublimation printing, dyeing and printing - it will also fit in an embroidery hoop for computerised machines. Ideal for creative applications such as hats, belts, bags, media cases/book covers, as well as for interior decoration products.

TXM03-A4-10	10 A4 Sheets of Decovil Light	7.95
TXM03-9-15	15m x 900mm roll of Decovil Light	92.00

Iron-on Interfacing with a Firm Leather-Like Feel (Decovil 1)

Very firm fusible interlining with a leather-like feel. Ideal for products that need to maintain their shape. Tear resistant, very stable and non fraying, it machines well and can be laser cut. Excellent for sublimation printing, dyeing or painting and useful for all creative handicrafts, hats, belts, bags, media cases/book covers as well as for interior decoration products.



TXM04-A4-10	10 A4 Sheets of Decovil 1	10.50
TXM04-9-15	15m x 900mm roll of Decovil 1	144.00

Bondaweb

Fabric Fuser

Fine non-woven fabric with adhesive on both sides and paper backing on one. Suitable for all fabrics (including leather at low temperature). Use for applique, mending and general craft work.

TXM21-A4-10	10 A4 Sheets of Vilene Bondaweb	6.50
TXM21-9-25	25m x 900mm roll of Vilene Bondaweb	98.00

E Textiles

E Textiles describes a contemporary and exciting new dimension for textile design. Using miniature components and conductive thread, simple LED circuits can be built into any type of textile product - including garments. For the ultimate in bling for dance or evening wear or to take high-visibility to another level, E-Textiles has a great deal to offer. The components we offer here have been developed to make the technique both accessible and reliable and all have a proven track record for success from KS2 to KS5.



How it works?

All the components are designed for easy but discrete stitching to the product and feature a pair of through-hole plated connection terminals. Simply over-sew around each terminal with conductive thread and a reliable circuit can be created. The different components are simply joined together using conductive thread and a small running stitch. No soldering is needed. The conductive thread forms an electrical circuit so the layout must be carefully designed to prevent stitches crossing or touching.

Designing with E Textiles

Decide on what type, colour and how many LEDs you wish to use and work out their position on the product. They may sit on the surface or could be on a separate layer beneath - it is often easier to work in layers. Decide on what type of switch is required - this could be another component or simply metal press studs or a metal zip. Soft switches can be made from conductive fabric and foam and stitched anywhere in the circuit. Finally, decide where the batteries will best be hidden. A single coin cell will power up to 5 LEDs depending on the type and colours chosen. If necessary, an additional power supply board (or boards) can be added. Simply fix and connect them using a parallel connection and conductive thread.

This Sochi Container was made using S80 non-woven fabric and was printed using the Sawgrass SG400 sublimation printer. This was then cut out on the CAMM 1 knife cutter. The design for the net and all the patterns were created in TechSoft's 2D Design V2. The embroidery on the surface and side stitching was done using a Brother Innov-is 35 sewing machine. Embroidered 3D sections were created using soluble fabric and organza, stitched on the Brother Innov-is V3 embroidery machine - the initial design was created in PE Design Next software. The electronics used were sewable LEDs, 3V power supply and a light sensor, stitched together with conductive thread.



Don't Do Electronics?

You soon will with E Textiles. All circuits are made using parallel connections for the LEDs with switches connected in series. Each component has positive (+) and negative (-) signs clearly marked and all you do is connect between these. Students will find it helpful to prepare a simple circuit diagram as part of their design work to guide them when building their E Textile product.



This design was created using TechSoft's 2D Design V2 and sent to a CAMM 1 to be cut from textile vinyl. Sewable LEDs were added to the eyes and stitched to the power supply board in the front pocket using a conductive thread. Crystals were glued onto vinyl to reflect light from the LEDs. Flowers were stitched on the organza with soluble fabric stabiliser and were cut out after stitching.

E Textiles Starter Kit

Contains sewable coin cell holder, 2m thread and colour changing LED, 3 sewable coin cell holders, small conductive thread bobbin (6m), 10 blue sewable LEDs, 10 white sewable LEDs, sewable coin cell holder with built-in power switch, sewable push switch, sewable slide switch, sewable tilt, switch & strip of 5 CR2032 coin cells.



TXEF-PK1	E Textiles Starter Pack.	21.50
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Flashing LED Kits



TXEF-LEDF1-COL

TXEF-LEDCC1

TXEF-LEDF1-COL*	Sewable Flashing LED Kit. (Includes coin cell holder, coin cell, 2m conductive thread, 2 flashing LEDs). Available in blue, green, red and yellow.	2.70
TXEF-LEDCC1	Sewable Colour Changing LED Kit. (Includes coin cell holder, coin cell, 2m conductive thread, colour changing LED)	2.70

Sewable Buzzer



TXEF-BUZZ1

TXEF-BUZZ1	Sewable Buzzer 18x8x6mm	2.50
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Modules



TXEF-MOD1

TXEF-MOD2

TXEF-MOD1	E Textiles Module - Flasher Controller & LEDs.	4.80
TXEF-MOD2	E Textiles Module - Light Sensor	3.50

Power Boards

The power supply boards featuring CR2032 coin cells will keep more LEDs brighter for longer so are the most popular choice for most students.



TXEF-CCH1

TXEF-CCH3

TXEF-CCH2

TXEF-CCH4

TXEF-CCH1	Sewable Coin Cell Holder (34x20x4.5mm, accepts CR2032 batteries)	1.10
TXEF-CCH3	Sewable Miniature Coin Cell Holder (22x12.5x4mm, accepts CR1220 batteries)	1.10
TXEF-CCH2	Sewable Coin Cell Holder with Switch (44x20x4.5mm, accepts CR2032 batteries)	1.85
TXEF-CCH4	Sewable Coin Cell Holder with Latching Switch (44x28x5mm, accepts CR2032 batteries)	2.15

Switches

Push switches only operate while you press them so might best be hidden in a pocket. A slide switch stays on so could be behind a cuff or lapel. A tilt switch operates when moved, if stitched into a sleeve then it could make the LEDs come on when you raise your arm. A latching switch is a push on, push off switch. Magnetic switches are in two parts, if they were stitched into either side of a pocket then the LEDs could be controlled by placing a hand in your pocket.



	TXEF-SW1	TXEF-SW2	TXEF-SW3	TXEF-SW5	TXEF-SW4
TXEF-SW1	Sewable Push Switch (18x8.5x6mm)				0.90
TXEF-SW2	Sewable Slide Switch (18x8.5x4mm)				0.90
TXEF-SW3	Sewable Tilt Switch (26x6.5x7mm)				1.50
TXEF-SW5	Sewable Latching Switch (20x20x4mm)				1.60
TXEF-SW4	Magnetic Switch Complete with Magnet				3.00

Batteries

A single CR1220 coin cell is about the size and weight of a 1p coin and will keep a single LED bright for about two hours. The CR2032 coin cell is about the size and weight of a 5p coin and will keep a single LED bright for about 10 hours.

TXEF-BAT1-5	Pack of 5 CR2032 Coin Cell Batteries	1.20
TXEF-BAT2-5	Pack of 5 CR1220 Coin Cell Batteries	1.20

Conductive Thread

No soldering is needed! Connections are made using conductive thread. Several loops of this are firmly stitched around the connection terminal before being taken to the next terminal with a loose running stitch.



TXEF-CT-2	2m Conductive Thread (on Card)	1.66
TXEF-CT-6	6m Conductive Thread (on Card)	2.50
TXEF-CT-45	45m Conductive Thread (on Bobbin)	7.95
TXEF-CT-250	250m Conductive Thread (on Bobbin)	35.00

Conductive Material

Conductive fabric gives even more opportunities for ingenuity. Small patches can be sewn where they can be deliberately (or randomly) touched together thus making a soft switch.



TXEF-CF-R1	Conductive Fabric (Ripstop, 305 x 330mm)	12.00
TXEF-CF-S1	Conductive Fabric (Stretch, 305 x 330mm)	25.00

LED Boards

There are two sorts of LEDs for use in textiles – the sew on ones that come on their own board and the regular LEDs for traditional electronic work.



TXEF-LEDB10-6-COL*	Pack of 10 Sewable LED Boards (15 x 6.5 x 2.7mm). Available in red, blue, white, green and lilac.	4.60
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* When ordering, where COL is included in the order code, please change this to specify the actual colour required.

Traditional LEDs

To sew these traditional LEDs onto textiles, simply bend the legs so that they are at right angles to the bulb and curl them to form loops, through which conductive thread can be oversewn to make the circuit. Alternatively, the 5mm LEDs can be soldered onto a handy sewable LED holder.

Standard 3mm LEDs (25 degrees)



TXC-LED3C-10-BL	Pk of 10 Blue 3mm Water Clear LED (1750mCd)	1.50
TX-LED3C-10-GR	Pk of 10 Green 3mm Water Clear LED (75mCd)	1.00
TX-LED3C-10-OR	Pk of 10 Orange 3mm Water Clear LED (1750mCd)	1.00
TX-LED3C-10-RD	Pk of 10 Red 3mm Water Clear LED (1000mCd)	1.00
TX-LED3C-10-WH	Pk of 10 White 3mm Water Clear LED (2750mCd)	1.50
TX-LED3C-10-YL	Pk of 10 Yellow 3mm Water Clear LED (1000mCd)	1.00

Standard 5mm LEDs (25 degrees)



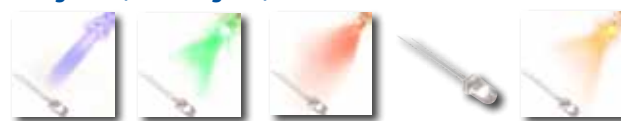
TX-LED5C-10-BL	Pk of 10 Blue 5mm Water Clear LED (1150mCd)	1.50
TX-LED5C-10-GR	Pk of 10 Green 5mm Water Clear LED (1000mCd)	1.00
TX-LED5C-10-OR	Pk of 10 Orange 5mm Water Clear LED (900mCd)	1.00
TX-LED5C-10-RD	Pk of 10 Red 5mm Water Clear LED (1150mCd)	1.00
TX-LED5C-10-WH	Pk of 10 White 5mm Water Clear LED (2250mCd)	1.50
TX-LED5C-10-YL	Pk of 10 Yellow 5mm Water Clear LED (800mCd)	1.00
TXEF-HOLD1	Pk of 10 Sewable 5mm LED Holder (18x8x1mm)	3.25

Pink 4.8mm LED (100 degrees)



TX-LED48C-10-PK	Pk of 10 Pink 4.8mm Water Clear LED (700mCd)	3.00
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Flashing LEDs (15/30 degrees)



TX-LED5FC-10-BL	Pk of 10 Flashing Blue 5mm Water Clear LED	2.40
TX-LED5FC-10-GR	Pk of 10 Flashing Green 5mm Water Clear LED	2.40
TX-LED5FC-10-RD	Pk of 10 Flashing Red 5mm Water Clear LED	2.40
TX-LED5FC-10-WH	Pk of 10 Flashing White 5mm Water Clear LED	2.40
TX-LED5FC-10-YL	Pk of 10 Flashing Yellow 5mm Water Clear LED	2.40
TXEF-HOLD1	Pk of 10 Sewable 5mm LED Holder (18x8x1mm)	3.25

Colour Changing LEDs



TX-LED5CC-10	Pk of 10 Colour Changing 5mm LED (diffused, VF 2.7-5, 3000mcd@25mA)	5.00
TX-LED10CC-10	Pk of 10 Colour Changing 10mm LED (diffused, VF 2.7-5, 3000mcd@25mA)	5.50

Textiles

Clothing

Clothing

For personalisation with Embroidery, Heat Applied Media and Laser Image Transfer. 100% polyester items are also suitable for sublimation printing.

Hoodies

Classic pull-on style featuring a chunky draw-string for the hood and stretch cuffs and waistband. These tops will keep their shape and keep out the cold. Available in up to 50 colours depending on size required. These quality hoodies are an ideal basis for customising using machine embroidery, Laser Image Transfer or heat-pressed applied vinyl. 80% Cotton, 20% Polyester, 280 gsm.



Adult Size:	XS	S	M	L	XL	XXL	3LX	4XL	5XL
Chest:	34"	36"	40"	44"	48"	52"	56"	60"	64"

Child Size:	XXS	XS	S	M	L	XL
Age:	1/2	3/4	5/6	7/8	9/11	12/13

French Navy (c, s, x)	Oxford Navy (c)	Plum (c)	Purple (c, s)
Royal Blue (c, s)	True Violet	Airforce Blue	Cornflower Blue
Hawaiian Blue (c)	Sapphire Blue (c, s)	Lavender	Sky Blue (c)
Peppermint	Jade (c)	Turquoise Surf	Bottle Green (c)
Olive Green	Moss Green	Kelly Green (c, s)	Alien Green
Kiwi	Lime Green (c)	Apple Green	Desert Sand
Fizzy Lemon	Vanilla Milkshake	Sun Yellow (c)	Gold
Orange Crush (c)	Burnt Orange	Sunset Red	Fire Red (c, s)
Cranberry	Hot Pink (c, s)	Candyfloss Pink (c, s)	Baby Pink (c, s)
Red Hot Chilli (c)	Magenta Magic	Burgundy (c)	Lipstick Pink
Pinky Purple	Hot Chocolate	Jet Black (c, s, x)	Storm Grey
Charcoal (c)	Steel Grey	Heather Grey (c, s, x)	Ash (c)
Moondust Grey	Arctic White (c, s)	N.B. Colours shown are only an indication.	

CL-HD1-1-COL-SZ*	Hoodie (Child Ages 1/2 - 12/13, Chest 24" - 34"). Available in 25 colours marked c above.	7.90
CL-HD1-2-COL-SZ*	Hoodie (Adult Sizes XS-XXL, Chest 34" - 52"). Available in 50 colours including white (except size XS where only 12 colours are available marked s above).	9.40
CL-HD1-3-COL-SZ*	Hoodie (Adult Sizes 3XL-5XL, Chest 56"-64"). 80% Cotton, 20% Polyester, 280gsm. Available in Heather Grey, Jet Black and French Navy only (marked x above)	10.15

* When ordering, where COL-SZ, is included in the order code, please change this to specify the actual colour and size required.

Sweatshirts

Warm and durable with a standard crew neck, these sweatshirts feature stretch cuffs and waistband so will keep their shape after repeated washing. The fabric is smooth on the front, back and sleeves so makes an ideal base for customising with machine embroidery, Laser Image Transfer or heat-pressed applied vinyl. 50% Cotton, 50% Polyester.



Child Size:	S (5-6)	M (7-8)	L (9-11)	XL (12-13)
Age:	26"/28"	30"/32"	34"/36"	38"/40"

Adult Size:	S	M	L	XL	XXL
Chest:	38"	40"	43"	45"	48"

Antique Cherry Red	Antique Sapphire	Ash (c)	Black (c)
Carolina Blue	Charcoal	Cherry Red	Dark Chocolate
Dark Heather	Forest Green (c)	Gold	Heleconia
Honey	Indigo Blue	Irish Green	Kiwi
Light Blue	Light Pink (c)	Maroon	Military Green
Navy (c)	Orange	Parika	Purple
Red (c)	Royal (c)	Sand	Sport Grey (c)
Violet	White (c)	N.B. Colours shown are only an indication.	

CL-SS2-1-COL-SZ*	Sweat Shirt (Child Ages 5/6 - 12/13, Chest 26" - 40"). 255gsm white, 270gsm colours. Available in Ash, Black, Forest Green, Light Pink, Navy, Red, Royal, Sport Grey & White only (marked c above).	5.15
CL-SS2-2-COL-SZ*	Sweat Shirt (Adult Sizes S-XXL, Chest 34" - 52"). 255gsm white, 270gsm colours. Available in 29 colours plus white, see above.	6.99

Polo Shirts

The standard item for sport, work or casual wear these quality Polo shirts are made from 100% Polyester so can be printed and customised using Sublimation, machine embroidery, Laser Image Transfer or heat-pressed applied vinyl. Available in up to 19 colours depending on size required and made from 140 gsm fabric.



Child Size:	XS	S	M	L	XL
Age:	3-4	5-6	7-8	9-11	12-13

Adult Size:	S	M	L	XL	XXL
Chest:	38"	40"	43"	45"	48"

Artic White (c)	Bottle Green	Desert Sand	Electric Green
Electric Orange	Electric Pink	Electric Yellow	Fire Red (c)
French Navy (c)	Heather Grey	Hot Pink (c)	Jet Black (c)
Lime Green (c)	Olive Green	Orange Crush	Purple (c)
Royal Blue (c)	Sapphire Blue (c)	Sun Yellow (c)	

N.B. Colours shown are only an indication.

CL-PS1-1-COL-SZ*	Polo Shirt (Child Ages 3/4 - 12/13, Chest 24" - 34"). Available in Arctic White, Fire Red, French Navy, Hot Pink, Jet Black, Lime Green, Purple, Royal Blue, Sapphire Blue & Sun Yellow only (marked c above).	4.25
CL-PS1-2-COL-SZ*	Polo Shirt (Adult Sizes S-XXL, Chest 38"-48") Available in 19 colours including white, see above.	5.65

T Shirts

The humble but timeless 'T'-shirt makes an ideal and economical basis for student project work. These good quality cotton shirts can be customised using machine embroidery, Laser Image Transfer or heat-pressed applied vinyl. Available in up to 27 colours depending on size required.



Child Age:	1/2	2/3	3/4	5/6	7/8	9/11	12/13	14/15
Chest:	24"	25"	26"	28"	30"	32"	34"	36"

Adult Size:	S	M	L	XL	XXL	3XL
Chest:	35"/37"	38"/40"	41"/43"	44"/46"	47"/49"	50"/52"

Ash	Azure Blue (c)	Black (c)	Bottle Green (c)
Brick Red	Burgundy (c)	Charcoal	Classic Olive
Deep Navy (c)	Fuchsia	Kelly Green (c)	Khaki
Lite Graphite	Light Pink (c)	Chocolate	Navy (c)
Orange (c)	Purple (c)	Red (c)	Royal Blue (c)
Sky Blue (c)	Steel Blue	Sunflower (c)	Yellow (c)
Heather Grey (c)	Natural (c)	White (c)	

N.B. Colours shown are only an indication.

CL-TS1-1-COL-SZ*	T-Shirt (Child Ages 1/2 - 12/13, Chest 24" - 34"). 100% Cotton, 165gsm. Available in 15 colours plus natural, heather grey (97% cotton, 3% polyester) and white (160gsm). (Colours maked c above).	1.99
CL-TS1-2-COL-SZ*	T-Shirt (Adult Sizes S-3XL, Chest 35"-52"). 100% Cotton, 165gsm. Available in 24 colours plus white (160gsm), heather grey (97% cotton, 3% polyester) and Ash (99% cotton, 1% polyester).	2.40

Designed for Sublimation Printing



These bright white 'T'-shirts are made from 100% Polyester and are designed specifically to give the brightest and most durable results for Sublimation printing. These shirts cannot be beaten for faithfully reproducing subtleties and true colours in the original design image.

Sublimation Polo Shirts:

Adult Size:	XS	S	M	L	XL	XXL
Chest:	35"	38"	40"	43"	45"	48"

Sublimation T-Shirts:

Child Size:	XS	S	M	L	XL
Age:	3/4	5/6	7/8	9/11	12/3

Adult Size:	XS	S	M	L	XL	XXL	3XL
Chest:	35"	38"	40"	43"	45"	48"	50"

SUB-PS1-2-WH	White Polo Shirt Designed for Sublimation (Sizes XS-XXL, Chest 35" - 48") 185gsm.	5.50
SUB-TS1-1-WH	White T-Shirt Designed for Sublimation (Child Ages 3/4-12/13, XS-XL).	4.80
SUB-TS1-2-WH	White T-Shirt Designed for Sublimation (Sizes XS-3XL, 35"-50").	4.30

Caps

Polyester Caps

100% Polyester 6 Panel Cap, features inner sweatband and adjustable tear and release strap at the rear. Available in 30 colours.



Airforce Blue	Artic White	Ash	Baby Pink
Bottle Green	Burgundy	Charcoal	Desert Sand
Electric Green	Electric Orange	Electric Pink	Electric Yellow
Fire Red	French Navy	Hawaiian Blue	Heather Grey
Hot Chocolate	Hot Pink	Jet Black	Kelly Green
Lime Green	Magenta Magic	Olive	Orange Crush
Purple	Red Hot Chilli	Royal Blue	Sapphire Blue
Sky Blue	Sunshine Yellow		

N.B. Colours shown are only an indication.

SUB-CAP-COL	Polyester Cap. (Available in 30 Colours)	2.80
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Cotton Caps

100% Cotton 5 Panel Cap, features Rip-Strip™ size adjuster. Available in 25 colours.



Black	Bottle Green	Bright Red	Burgundy
Chocolate	Classic Pink	Classic Red	Emerald
French Navy	Fuchsia	Gold	Graphite Grey
Kelly Green	Light Grey	Lime Green	Natural
Olive	Orange	Purple	Royal
Sand	Sky	Surf Blue	White
Yellow			

N.B. Colours shown are only an indication.

LIT-CAP10-COL	10 Baseball Caps (100% fine cotton twill) (Available in 25 Colours)	20.00
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Aprons

Bib Apron with sliding adjustable buckle, self fabric neck band and ties. 72 x 86cm - 65% Polyester, 35% Cotton Twill, 195gsm Available in 50 colours.

Apple	Aqua	Aubergine	Black
Black Denim	Blue Denim	Bottle	Brown
Burgundy	Chestnut	Cornflower	Cyan
Dark Grey	Emerald	Fuchsia	Grey Denim
Hot Pink	Indigo Denim	Kelly	Khaki
Lavender	Lemon	Light Blue	Lilac
Lime	Magenta	Marine Blue	Mid Blue
Mocha	Natural	Navy	Oasis Green
Olive	Orange	Pink	Purple
Red	Rich Violet	Royal	Sage
Sapphire	Silver	Steel	Strawberry Red
Sunflower	Teal	Terracotta	Turquoise
White	Yellow		

N.B Colours shown are only an indication.

CL-AP1-COL	Bib Apron, One size. (Available in 50 Colours)	6.35
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Accessories and Materials

Accessories and Materials

Embroidery Felt

Polyester embroidery felt, 2000mm wide. Priced per metre (*whole metres only*). Available in white, gold, red, dark red, lime green, emerald green, dark green, dark blue, dark navy blue, brown, light grey and black.

PA300	Embroidery Felt per metre (2000mm wide) <i>Please state length and colour required.</i>	16.50
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Stitch Cut Reflective Vinyl

An astonishing applique material with low visual impact in daylight and amazing 'glow in the dark' brilliance when caught by lights or photo-flash. The material is satin-stitched to the garment in the shape of the design. The stitched border effectively cuts the vinyl to shape ready for permanent fixing with a heat press.

It is available in sheets 480 x 320mm, in a range of colours and effects.



***When ordering, where COL is included in the order code, please change this to specify the actual colour(s) required.**

Black	White	Silver	Gold
Red	Orange	Yellow	Royal
Green	Pink		

TAVRSF-COL*	Single colour Reflective Heat Applied Stitched Vinyl sheet 480 x 320mm.	5.80
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Black/Gold	Black/Silver	Red/Silver	Royal/Silver
Pink/Silver	Purple/Silver	Gold	Silver

TAVRSFM-COL*	Two Colour Mottled Effect Reflective Heat Applied Stitched Vinyl sheet 480 x 320mm.	7.35
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Black/Gold	Black/Silver	Red/Silver	Pink/Silver
Purple/Silver	Royal/Silver	Silver	Gold

TAVRSFS-COL*	Two Colour Scratched Effect Reflective Heat Applied Stitched Vinyl sheet 480 x 320mm.	7.35
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Preciosa Crystals

Preciosa are genuine Czech crystals which are multi-faceted (12 facets) to give maximum shine. The Aurora Borealis Crystals act like a prism and reflect the light so as to add some real sparkle to your product. They can be used with a variety of materials and colours.



Heat Applied

The Preciosa Hotfix Flatback Crystals are iron-on or for use with a heat press (see page 116) ideally in conjunction with a Teflon sheet as it is better to protect the surface of the crystals when pressing to release the adhesive. Timings and temperature need testing but 180°C for 10 seconds is a good starting point.

TXCR-H12-AB	Pack of 100 Preciosa Hotfix Flatback Crystals. Aurora Borealis, Size ss12 (3.2mm)	3.40
TXCR-H20-AB	Pack of 100 Preciosa Hotfix Flatback Crystals. Aurora Borealis, Size ss20 (5mm)	5.95
TXCR-H34-AB	Pack of 36 Preciosa Hotfix Flatback Crystals. Aurora Borealis, Size ss34 (7mm)	6.45

Glue-On

For items that cannot be pressed, use the glue-on crystals in conjunction with the Gem-Tac adhesive and a jewel setter applicator. Jewel setters come in packs of two and are an inexpensive method of holding a crystal and positioning it in exactly the correct place.

The ss20 crystals in glue-on also come as clear – this is for use with sewable LEDs when working with E-Textiles. Use Gem-Tac to glue the crystal directly on top of the LED and the light will shine through disguising the LED.

Gem-Tac is a permanent adhesive - it bonds gems, sequins, glitter and rhinestones to lots of fabrics. It will also bond fabrics to glass, vinyl, metal & patent leather. A great multi-purpose adhesive, it is washable, it dries crystal clear and is non-toxic and non-flammable.

TXCR-N12-AB	Pack of 100 Preciosa Glue-on Flatback Crystals. Aurora Borealis, Size ss12 (3.2mm)	3.35
TXCR-N20-AB	Pack of 100 Preciosa Glue-on Flatback Crystals. Aurora Borealis, Size ss20 (5mm)	6.30
TXCR-N20-CL	Pack of 100 Preciosa Glue-on Flatback Crystals. Clear, Size ss20 (5mm)	4.50
TXCR-N34-AB	Pack of 36 Preciosa Glue-on Flatback Crystals. Aurora Borealis, Size ss34 (7mm)	5.85

Application Equipment



TXCR-JS1	Pack of 2 Jewel Setters. (Used for applying crystals.)	3.40
TXCR-ADH1	2oz bottle Gem-Tac Embellishing Glue for use with Glue-on Crystals.	7.40

Blanca Press



The Blanca Press fills the gap between smaller domestic ironing presses and expensive, large heavy duty laundry equipment. The Blanca Press will stand up to heavy, continuous daily use and its rugged construction has proved it to be very reliable.

Power Requirements: 240V 7A

Prices £*		*See Pricing Information inside front cover
MM-PRESS1	Blanca Press	595.00

FastPress



FastPress is quick to set up on any table or any work surface, light and easy to carry around and takes up very little storage space. The easy to use FastPress features fingertip closing and simple, clear controls.

Power Requirements: 240V 7A

Prices £*		*See Pricing Information inside front cover
MM-PRESS2	FastPress	250.00

FastPress Steam



The new Fastpress Steam has a pressure steam system and has a Teflon coated heating plate which is somewhat hotter for the user than the non-steam version. The steam is very effective where an occasional shot of steam is required for creases in trousers etc., and should not be compared to the continuous flow of a steam iron.

Power Requirements: 240V 10A

Prices £*		*See Pricing Information inside front cover
MM-PRESS3	FastPress Steam	299.00

Dressmaker's Dummy

This Dressmaker's Dummy has an 8-part body to enable the waistline to be lengthened when a longer back measurement is required. The neck is fully adjustable with an auto-set system and useful pin cushion.



Prices £*		*See Pricing Information inside front cover
MM-DUMMY1-P	Dressmaker's Dummy Petite Size Bust 71 - 86cm (28" - 34"), Waist 56 - 74cm (22" - 29"), Hips 76 - 94cm (30" - 37")	108.00
MM-DUMMY1-S	Dressmaker's Dummy Small Size Bust 84 - 104cm (33" - 41"), Waist 59 - 81cm (23" - 31"), Hips 86 - 106cm (34" - 42")	108.00
MM-DUMMY1-M	Dressmaker's Dummy Medium Size Bust 100 - 116cm (39" - 47"), Waist 74 - 94cm (29" - 37"), Hips 102 - 122cm (40" - 48")	108.00
MM-DUMMY1-F	Dressmaker's Dummy Full Figure Size Bust 115 - 134cm (45" - 53"), Waist 97 - 116cm (38" - 46"), Hips 120 - 140cm (47" - 56")	128.00

Ironing Table and Iron

Professional Ironing Table

The Rotondi PVT-30 is a professional ironing table at an economy price. The heated main table features a 3-layer cover and thermostatic heater control. The table supplied is a general purpose form that will suit most applications. An integral vacuum system will hold garments flat onto the form for easy pressing.



MM-IRONBRD2

Weight: 68kg

Dimensions: 1490(W) x 530(D) x 900(H)mm

Professional Steam Iron

The Rotondi Mini 3 is a professional quality iron for use with conventional ironing boards or will be the perfect compliment to the PVT-30 table. The base unit houses a stainless steel 2.15 litre water tank and 1.3kW heater for rapid steam generation. Double protection against over-pressure and heat is built-in. The ergonomically designed iron features an 800W element.



MM-IRONSG1

Prices £*		*See Pricing Information inside front cover
MM-IRONBRD2	Rotondi PVT-30 Ironing Table	1,085.00
MM-IRONSG1	Rotondi Mini 3 Steam Generator Iron (for use with MM-IRONBRD2)	305.00

Image Transfer

Laser Image Transfer



Image Transfer onto a Range of Standard Materials

Every department needs a fast, good quality colour printer so why not choose one that will not only deal with high quality 'regular' paper printing, but will also become the heart of a system so versatile that it can transform project outcomes in just about every area of Design and Technology?

The Technology Explained

Laser Image Transfer (LIT) uses a slightly modified colour laser printer to transfer images onto special transfer media. The laser toner itself creates the colour image so no special inks or 'extras' are needed. The transfer sheet is then heat-pressed onto almost any 'regular' workshop material to create a crisp, permanent image that reproduces all the colour and vibrancy of the original. The TMT OKI printers we supply are all factory-approved in terms of their LIT modification so manufacturer's warranties are unaffected.

LIT/CAM

By integrating LIT and CAD/CAM all sorts of project possibilities emerge. How about LIT-printing onto plywood and then laser-cutting jigsaw puzzles, games or shape-sorter toys? You can either pre-decorate the material, or apply LIT images after the material is cut. The effect will be seen on-screen, on print-outs for the design folder, and on the project itself. So if you want a vacuum formed shell in pink floral pattern (why not) then design the pattern in 2D Design V2, print it onto white HIPS and then form it. The pattern will distort a little as it is vacuum formed but it will stretch smoothly without cracking and, of course, the heat will not affect it.

LIT - A Versatile Solution for Education

For educational use, we believe that LIT has a number of very significant advantages. LIT and CAD/CAM could be the core technology for a single project, or could enable a range of exciting outcomes all stemming from the same design work in 2D Design V2. Sublimation provides a cost-effective solution using prepared material, but remember that most standard materials you already use will be fine for LIT work. For enterprise projects, we supply a range of LIT-ready mouse-mats, mugs, coasters, etc., which will give the ideal raw material.

Everyone Benefits

It's all about versatility - with tight budgets you need to know your investment will be able to earn its keep throughout the year and not just for one-off projects.



A4 TMT C612N Printer



A high-quality laser printer with the TMT modification that makes it capable of transferring images onto LIT media. The C612N remains an excellent, fast, colour laser printer for all general A4 paper printing needs.

Specifications

Size:	A4
Ink Colours:	Black, Cyan, Magenta, Yellow
Fuser Unit:	TMT Modified Engine Settings
Banner Print:	Up to 1200mm
Speed:	36ppm Mono, 34ppm Colour
Resolution:	1200 x 600dpi print quality ProQ 2400 Multilevel Technology
Interface:	USB or Ethernet
Weight:	30kg
Dimensions:	435(W) x 604(D) x 340(H)mm
Warranty:	1 Year On-Site (UK Mainland & Ireland) 1 Year Return and Collect (Elsewhere)

N.B. Warranty extendable to 3 years FOC if registered by user

A4 TMT C7411WT White Printer



A unique TMT modified laser printer with a white toner cartridge (instead of black) which allows it to print bright, true colour images onto coloured paper and LIT media. Images will transfer onto dark (even black) surfaces. Not recommended for general paper printing.

Specifications

Size:	A4
Ink Colours:	White, Cyan, Magenta, Yellow
Fuser Unit:	TMT Modified Engine Settings
Banner Print:	Up to 1200mm
Speed:	36ppm Mono, 34ppm Colour
Resolution:	1200 x 600dpi print quality ProQ 2400 Multilevel Technology
Interface:	USB or Ethernet
Weight:	28kg
Dimensions:	435(W) x 546(D) x 389(H)mm
Warranty:	1 Year On-Site (UK Mainland & Ireland) 1 Year Return to Base (Elsewhere)

N.B. Warranty extendable to 3 years FOC if registered by user

Starter Packs

Laser Image Transfer Starter Pack



Everything you need to get started and have resources in reserve. The pack includes 2 Teflon sheets and an A-Pad, S-Pad and Sponge Pad for transferring images onto hard materials as well as fabrics. Includes the TMT OKI C612N A4 laser printer, swing press 330 x 330mm, 100 sheets A4 fabric transfer paper, 100 sheets A4 non-fabric transfer paper.

Combined Laser Image Transfer and Sublimation Starter Pack



Can't decide whether to go for Laser Image Transfer or Sublimation? Why not look at one of our combined packages which will give you the best of both worlds at little extra cost. In addition to the Laser Image Transfer Starter Pack described above, there is also an A4 Sublimation printer, mug press with wrap, heat resistant tape and 200 sheets of A4 sublimation paper.

Prices £*

*See Pricing Information on page 2

Laser Image Transfer Starter Pack

MP5-LIT-A4	Laser Image Transfer Pack A4 inc. TMT OKI A4 laser printer, swing press (330 x 330mm), 2 Teflon Sheets, A-Pad, S-Pad, sponge, 100 sheets A4 fabric transfer paper, 100 sheets A4 non-fabric transfer paper	1,165.00
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Combined Laser Image Transfer and Sublimation Full Starter Pack

MP-LITSUB-A4	Combined Laser Image Transfer (LIT) and Sublimation Full Starter Pack Inc TMT OKI A4 Laser Printer, Sawgrass Virtuoso SG400 A4 Printer, 330 x 330mm Swing Press, Mug Press, Satin Mug Wrap, 2 Teflon Sheets, A Pad, S Pad, Sponge, Heat Resistant Tape, 200 Sheets A4 Sublimation Paper, 100 Sheets LIT A4 Fabric Transfer Paper, 100 Sheets LIT A4 Non-Fabric Transfer Paper.	1,838.00
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TMT Laser Printers

LITM-OKIC612N	TMT OKI C612N A4 Laser Printer	325.00
LITM-OKIC7411WT	TMT OKI C7411WT A4 White Laser Printer	1,995.00

Heat Presses

For heat presses see page 116.

Materials and Accessories

For our full range of materials and accessories see pages 117 to 120.

Image Transfer

Sublimation



Transfer Brilliant, Full Colour Graphics onto Mugs and other Sublimation Friendly Items

Sublimation printing is a well-proven technique to transfer full-colour images onto a range of materials. The "promotional products" industry relies on sublimation for customising garments, giftware and branded items such as mugs and mousemats. For textiles work and school enterprise projects in particular, sublimation has a great deal to offer.



The Technology Explained

Sublimation Printing uses an inkjet process to create images on special transfer media. Printing needs to be 'reversed' so that, once transferred, the image is the right way round. The results are eye-catching, durable and totally professional but, until now, the technology has meant adapted ink-jet printers and potential reliability problems. New SubliJet-HD technology from Sawgrass uses gel inks to provide a reliable and cost-effective solution that we are now delighted to offer to schools and colleges. We supply Sawgrass Sublimation printers in both A4 and A3 formats together with a full range of sublimation media and accessories. To transfer the image requires a heat press (see page 116).

LIT or Sublimation?

The two technologies have a lot in common but there are important differences that will help determine which is right for you. Laser Image Transfer (LIT) is very versatile. It transfers images onto standard project materials and the LIT printers are fine for everyday paper printing. Sublimation Printing offers brighter, more durable, images but the sublimation printers are not suitable for 'general' printing.

Sublimation equipment and consumables are generally less expensive than LIT, but you then need high-polyester or polyester-coated materials to work on. This mainly means 'blank' sublimation-ready products. We therefore think LIT provides the most versatile resource for a whole D&T department, whereas Sublimation is ideal for mainly textiles work and, particularly, 'Enterprise' projects.



A4 Sawgrass Virtuoso SG400 Sublimation Printer



This A4 sublimation printer from Sawgrass provides high quality, vibrant images onto sublimation media. Using new SubliJet-HD technology, the SG400 uses gel-based inks and a special application system to eliminate blockages and prevent drying-up. This is particularly important in schools where machines may not be used for extended periods. Ink cartridges are supplied as sealed units for mess-free changing.

Specifications

Size:	A4
Ink:	SubliJet-HD
Speed:	High Speed: 156/hr @ 600 x 600 dpi High Quality: 72/hr @ 600 x 600 dpi Adv. Photo: 22/hr @ 1200 x 1200 dpi
Resolution:	Up to 3600 x 1200 dpi
Interface:	USB or Ethernet
Weight:	10.5kg
Dimensions:	399(W) x 437(D) x 213(H)mm
Power Requirements:	240V, 13A Socket
Warranty:	1 Year Return to Base (UK Mainland & Ireland) 1 Year Return and Collect (Elsewhere)

A3 Sawgrass Virtuoso SG800 Sublimation Printer



The Sawgrass Virtuoso SG800 allows both A3 and A4 print options with all the advantages of Sawgrass SubliJet-HD ink technology. Sharp, true colour images are delivered with impressive print speed. An A3 Swing Press will be required to take full advantage of this machine. (Please note that all SubliJet-HD printers are not suitable for general paper printing.)

Specifications

Size:	A3
Ink:	SubliJet-HD
Speed:	High Speed: 156/hr @ 600 x 600 dpi High Quality: 72/hr @ 600 x 600 dpi Adv. Photo: 22/hr @ 1200 x 1200 dpi
Resolution:	Up to 1200 x 1200 dpi
Interface:	USB or Ethernet
Weight:	19.1kg
Dimensions:	540(W) x 552(D) x 259(H)mm
Power Requirements:	240V, 13A Socket
Warranty:	1 Year Return to Base (UK Mainland & Ireland) 1 Year Return and Collect (Elsewhere)

Sublimation Starter Packs

Sublimation Mug Business Starter Pack A4



A great way to produce professional quality, unique and desirable products for fund raising, enterprise or coursework projects. The pack contains the Sawgrass Virtuoso SG400 printer, CMYK ink cartridges, an ARC single mug press, 200 sheets of A4 transfer media & heat resistant tape and 36 sublimation mugs. Everything you need to start your mug business!

Sublimation Textiles Starter Packs A4



Everything you need to set up your textiles sublimation business – all you need is imagination and the products you will customise (and sell?). The pack contains a Sawgrass Virtuoso SG400 printer, CMYK ink cartridges, 300x380mm multi-functional swing press, 200 sheets of A4 transfer media and heat resistant tape.

Prices £*

*See Pricing Information on page 2

Sublimation Mug Business Starter Pack

MP9-SUB-A4M	Sublimation Mug Business Starter Pk Inc Sawgrass Virtuoso SG400 A4 printer with 4 sublimation cartridges, ARC mug press, 36 mugs, 200 sheets A4 sublimation paper, heat resistant tape	697.00
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Sublimation Textiles Starter Packs

MP10-SUB-A4	Sublimation Textiles Starter Pk A4 Inc Sawgrass Virtuoso SG400 A4 printer with 4 sublimation cartridges, multi-functional swing press (380x300mm), 2 Teflon Sheets, 200 sheets A4 sublimation paper, heat resistant tape	1,120.00
MP10-SUB-A3	Sublimation Textiles Starter Pk A3 Inc Sawgrass Virtuoso SG800 A3 printer with 4 sublimation cartridges, swing press (380x500mm), 2 Teflon Sheets, 200 sheets A3 sublimation paper, heat resistant tape	2,470.00

Sublimation Full Starter Packs

MP9-SUB-A4	Sublimation Full Starter Pk A4 Inc Sawgrass Virtuoso SG400 A4 printer with 4 sublimation cartridges, multi-functional swing press (380x300mm), 2 Teflon Sheets, ARC mug press, 200 sheets A4 sublimation paper, heat resistant tape	1,319.00
MP9-SUB-A3	Sublimation Full Starter Pk A3 Inc Sawgrass Virtuoso SG800 A3 printer with 4 sublimation cartridges, swing press (380x500mm), 2 Teflon Sheets, ARC mug press, 200 sheets A3 sublimation paper, heat resistant tape	2,669.00

Sublimation Printers

SUBM-A4-SG400	Sawgrass Virtuoso SG400 A4 Sublimation Printer with 4 sublimation cartridges (42ml black, 29ml colours)	429.00
SUBM-A3-SG800	Sawgrass Virtuoso SG800 A3 Sublimation Printer with 4 sublimation cartridges (75ml black, 68ml colours)	1,324.00

Heat Presses

For heat presses see page 116.

Materials and Accessories

For our full range of materials and accessories see pages 117 to 120.

Image Transfer

Heat Presses

Perfect Control for LIT and Sublimation projects

Both LIT and Sublimation processes require a heat press to transfer images from the transfer media to the object to be printed. Close control of temperature, pressure and time is needed for high quality, predictable results. All these machines feature built-in timers, temperature control and pressure adjustment. Laser Image Transfer is demanding in terms of accurate, even pressure so only the heavily-built Swing Presses will serve this purpose. Sublimation is tolerant of small variations so the lighter multi-functional swing press will be fine. The cap press we list is suitable for both LIT and Sublimation as is the mug press. Please check carefully before ordering.

Mug Press



A durable press designed for sublimation printing onto ceramic mugs. With the additional satin mug wrap it can also be used for LIT. Features digital time and temperature control together with easy loading and unloading. A simple control panel allows for easy adjustment and provides visual 'countdown' and audible 'time-up' beep. The press comes with an element suitable for 11-15oz sized mugs. Further elements are available to suit different size mugs.

Specifications

Display Timer Range:	0 - 16.66 mins
Max. Working Temp:	260°C
Weight:	8.5kg
Dimensions:	170(W) x 580(D) x 380(H)mm
Working Area:	170(W) x 580(D) x 410(H)mm
Power Requirements:	240V, 280W, 13A Socket
Warranty:	1 Year Return to Base (UK Mainland & Ireland) 1 Year Return and Collect (Elsewhere)

Prices £* *See Pricing Information on page 2

SLM-MUGP2	ARC Single Mug Press c/w 11-15oz element	199.00
SLM-MUGWRP1	Mug Wrap Satin 300 x 110 x 2mm, for use with LIT	10.50
SLM-ELEMKIT2A	1.5oz Element for ARC Single Mug Press	47.25
SLM-ELEMKIT2B	2.5oz Element for ARC Single Mug Press	47.25
SLM-ELEMKIT2C	6-10oz Element for ARC Single Mug Press	58.00
SLM-ELEMKIT2D	12oz Latte Element for ARC Single Mug Press	63.00
SLM-ELEMKIT2E	17oz Latte Element for ARC Single Mug Press	63.00

Cap Press



This versatile cap press will apply LIT or Sublimation images to baseball caps and many types of headwear. It can also be used with TechSoft's heat applied media (see pages 44-45). Features robust construction for longevity and reliability. Microprocessor controlled for accurate time and temperature setting and for ease of operation. The position of the base table is adjustable to suit different styles of cap.

Specifications

Display Timer Range:	0 - 9.59 mins
Working Temperatures:	70 - 235°C
Weight:	15kg
Dimensions:	280(W) x 520(D) x 430(H)mm
Working Area Required:	280(W) x 520(D) x 800(H)mm
Power Requirements:	240V, 13A Socket
Warranty:	1 Year Return to Base (UK Mainland & Ireland) 1 Year Return and Collect (Elsewhere)

Prices £* *See Pricing Information on page 2

SLM-CAPPRESS	Cap Press	735.00
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A4+ Swing Press



This robust A4+ size (330 x 330mm) swing press provides high, even pressure across the platen. Precise time and temperature control is easy to set and monitor using the LCD display and simple interface. Suitable for LIT, Sublimation and all of TechSoft's heat applied media (see pages 44-45).

Specifications

Max Platen Size:	330 x 330mm
Weight:	35kg
Dimensions:	510(W) x 600(D) x 390(H)mm
Power Requirements:	240V, 2.5kW, 13A Socket
Warranty:	1 Year Return to Base (UK Mainland & Ireland) 1 Year Return and Collect (Elsewhere)

Prices £* *See Pricing Information on page 2

SLM-SWINGPR3333	A4+ Swing Press (330 x 330mm)	599.00
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A3+ Swing Press



This professional A3+ size (380x500mm) swing press has heavily engineered components to ensure high, even pressure across the platen. Precise time and temperature control is easy to set and monitor using the LCD display and simple interface. Suitable for LIT, Sublimation and all of TechSoft's heat applied media (see pages 44-45).

Specifications

Max Platen Size:	380 x 500mm
Weight:	45kg
Dimensions:	510(W) x 890(D) x 350(H)mm
Power Requirements:	240V, 2.5kW, 13A Socket
Warranty:	1 Year Return to Base (UK Mainland & Ireland) 1 Year Return and Collect (Elsewhere)

Prices £* *See Pricing Information on page 2

SLM-SWINGPRESS	A3+ Swing Press (380 x 500mm)	1,090.00
SLM-SPBASE1	250 x 250mm Interchangeable Press Platen Base for SLM-SWINGPRESS	145.00

Multi-Functional Swing Press



This multi-functional swing press is ideal for Sublimation and all of TechSoft's heat applied media (see pages 44-45). **It is not, however, recommended for LIT.** The 380 x 300mm platen provides generous accommodation for flat work including 'T' shirts. Add the cap and plate press attachments and you have an economical, versatile machine for a wide variety of Sublimations projects. Easy to use digital controls allow accurate temperature and dwell settings.

Specifications

Display Timer Range:	0 - 9999 sec
Max. Working Temp:	360°C
Weight:	29kg
Dimensions:	500(W) x 500(D) x 470(H)mm
Working Area Required:	1000(W) x 500(D) x 470(H)mm
Power Requirements:	230V, 13A Socket
Warranty:	1 Year Return to Base (UK Mainland & Ireland) 1 Year Return and Collect (Elsewhere)

Prices £* *See Pricing Information on page 2

SLM-SWINGPR3830	Multi-Functional Swing Press (380 x 300mm)	645.00
SLM-SPCAP1	Cap Attachment (150 x 80mm)	60.00
SLM-SPPLATE	Plate Element Kit (115cm diameter)	60.00

LIT - Fabric Transfer Paper



Mousemat



100% Cotton T-shirt

Transfer printed graphics onto white or light coloured fabrics and textiles, including T-shirts, polo-shirts, mousemats, canvas, etc.

For TMT OKI C610N, C5750N, C5600N

LIT-TTC31-A4R	100 A4 sheets transfer paper for white or pastel coloured fabric	52.50
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For TMT OKI C831N, C821N, MC860DN, C8800N & Epson Aculaser C8600

LIT-TTC31-A4	100 A4 sheets transfer paper for white or pastel coloured fabric	52.50
LIT-TTC31-A3	100 A3 sheets transfer paper for white or pastel coloured fabric	105.00

For TMT Konika Minolta 5430DL

LIT-TTC33-A4R	100 A4 sheets transfer paper for white or pastel coloured fabric	52.50
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LIT - Non-Fabric Transfer Paper



Acrylic Award



Plywood Puzzle

Transfer printed graphics onto white or light coloured non-fabric materials, such as cardboard, plastic, metal, ceramic, wood, etc.

N.B. Some materials require the use of an application pad (see Application Pads opposite).

For TMT OKI C610N, C5750N C5600N

LIT-CPM61-A4R	100 A4 sheets transfer paper for white or light coloured non-fabric materials	57.75
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For TMT OKI C831N, C821N, MC860DN, C8800N & TMT Epson Aculaser C8600

LIT-CPM61-A4	100 A4 sheets transfer paper for white or light coloured non-fabric materials	57.75
LIT-CPM61-A3	100 A3 sheets transfer paper for white or light coloured non-fabric materials	115.00

For TMT Konika Minolta 5430DL

LIT-CPM63-A4R	100 A4 sheets transfer paper for white or light coloured non-fabric materials	57.75
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LIT - Dark Colour Fabric Transfers



Transfer printed graphics onto dark coloured fabrics and textiles, using this two stage process.

LIT-WOW-A4	50 A4 transfers for dark coloured fabrics	147.00
LIT-WOW-PAD	Pad Applicator for use with dark colour fabric transfers	26.25

LIT - Application Pads



Application pads are used in conjunction with the swing press when transferring LIT graphics to different substrates.

LIT-APAD	A-Pad for use with plastics, metals, etc.	77.50
LIT-SPAD	Soft-Pad for use with plywood, board, leather, etc.	26.25
LIT-SPONGE	Sponge pad for coverseal and thick acrylic	2.10

LIT - Coverseal



Coverseal is used to protect a non-fabric surface from abrasion and heat, eg., it is used on coasters to protect the transferred image. A sponge pad is used to apply the coverseal.

LIT-COV10-A3	10 A3 Coverseal sheets with sponge pad	19.65
LIT-COV50-A3	50 A3 Coverseal sheets with sponge pad	84.00

Teflon Sheets



Teflon sheets provide added protection to the heated upper platen on a heat press when used with fabrics.

LIT-TEFLON	Teflon Sheet for use with fabrics, etc. (380 x 500mm)	7.35
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Heat Tape



Heat tape is used when you need to fix the transfer paper in place before transferring the image on the heat press. It is essential when transferring images onto mugs using the mug press, and is also useful with CAD/CAM applications.

SL-HEATTAPE	Heat resistant tape	6.30
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Sublimation - Transfer Paper



Sublimation Transfer Paper

SUB-P200-A4	200 A4 Sheets Sublimation Paper	25.00
SUB-P100-A3	100 A3 Sheets Sublimation Paper	25.00

Image Transfer

LIT Products & Materials

Products & Materials Ready for LIT



These products are ready to have images transferred onto them using the Laser Image Transfer process. *N.B. Not suitable for Sublimation.*

Laser Image Transfer Mugs



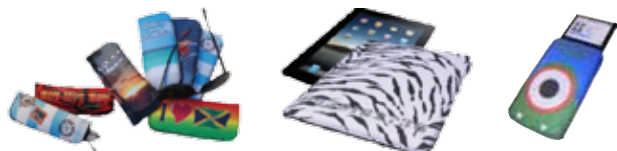
LIT-MUG36	36 Ceramic Coated Mugs 11oz (Dishwasher safe, for use with Mug Press)	55.00
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Bookmarks

LIT-BM2-10	Pack of 10 Leather Bookmarks (200 x 30mm)	14.50
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Soft Rubber Cases, Covers and Pouches

These products are made from a 3.5mm thick black rubber compound which offers great protection and they have a white jersey surface which can be personalised using sublimation or LIT.



SL-GLS10	10 Small Glasses Pouches (60 x 155mm)	10.50
SL-GLL10	10 Large Glasses Pouches (75 x 160mm)	12.60
SL-NETB	Netbook Cover (270 x 190mm)	2.90
SL-IPAD	iPad Cover (255 x 190mm)	2.90
SL-MP3L10	10 Large iPhone/iPod/MP3 Cases (78 x 130mm)	12.60

Bags



SL-BG1-COL	Gym Bag 450 x 340mm (available in 31 colours please state when ordering)	1.99
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Jigsaws



LIT-JIG40	LIT Jigsaw Puzzle (40 pieces) 270 x 190mm Ultra fine weave linen laminated on 2mm board.	2.00
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Display Board

LIT-BRD10-A4	10 A4 shts display board (2500 micron, inc struts)	10.00
LIT-BRD10-A3	10 A3 shts display board (2500 micron, inc struts)	20.50

Canvas Sheets

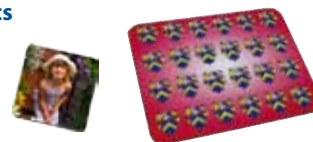
LIT-CAN10-A3	10 A3 Canvas sheets (10oz unprimed)	30.00
LIT-CAN50-A3	50 A3 Canvas sheets (10oz unprimed)	138.00

Mousemats



SL-MAT10-WF	10 Mouse Mats (250 x 190 x 6mm) White fabric surface with black rubber base	9.50
SL-MAT10-RWF	10 Round Mouse Mats (190mm dia, x 6mm) White fabric surface with black rubber base	10.50

Coasters & Placemats



SL-CSF25	25 Coasters with a fabric surface and rubber base (90 x 90 x 6mm).	12.60
SL-PMF	Place Mat with fabric surface and rubber base (380 x 260 x 3mm).	3.10

Mini T-shirts



LIT-MT50-W	50 White Mini T-shirts	42.00
LIT-MT50-HANGER	50 Mini T Hangers (for use with LIT-MT50-W)	16.00

T-Shirts For details see page 109.

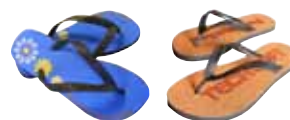
CL-TS1-1-COL-SZ	T-Shirt, 100% cotton. (Child Ages 1/2 - 12/13, Chest 24" - 34", available in 15 colours - please state when ordering)	1.99
CL-TS1-2-COL-SZ	T-Shirt, 100% cotton. (Adult Sizes S-3XL, Chest 35" - 52", available in 24 colours - please state when ordering)	2.40

White Baseball Caps



LIT-CAP10-WH	10 White Baseball Caps (100% fine cotton twill with curved peak & velcro back)	20.00
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Flip Flops



SL-FLIPK10	10 Pairs Kids Flip Flops (Small 17cm, Medium 19cm, or Large 22cm)	33.60
SL-FLIPA10	10 Pairs Adults Flip Flops (Small size 4-6, Medium size 7-9 or Large size 10-12)	47.25
SL-FLIPTOOL	Flip Flop Tool (to attach straps)	28.90

Teddy Bear with White T-Shirt



LIT-BEAR10	10" Teddy Bear with one white shirt	4.95
LIT-BEAR10-S	Spare white shirt for LIT-BEAR10 (100% cotton)	1.95

Products Ready for Sublimation



Image Transfer Board

Image transfer board is medite MDF (ideal for laser cutting) with a special coating on one side to allow images to be transferred onto it using Sublimation. The process creates a gloss finish image on one side of this medite board.

Students can design, laser cut and then transfer an image to create anything from point of sale displays, to clocks or jigsaws.



Image Transfer Board is available in 3mm thick sheets.

TA-ITSB5-3-10	Pack of 10 Image Transfer Boards for Sublimation (510 x 360mm)	139.00
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Sublimation Mugs

These mugs are specifically manufactured for sublimation printing and have the award winning "Orca" coating as standard, giving the ultimate in durability and vibrant colour.



SUB-MUGP-36	36 Coated Polyester Mugs 11oz (92mm tall, 80mm diameter)	38.00
SUB-MUGC-36	36 Bone China Mugs 10oz (100mm tall, 65mm diameter)	74.00
SUB-MUGS-48	48 Smug Mugs 6oz (73mm tall, 70mm diameter)	51.00
SUBA-ELEMKIT	6oz Element Kit for Single Mug Press (needed for smug and bone china mugs)	75.00

Money Boxes

These ceramic money boxes have a slot in the top and a bung underneath to remove the money.

Dimensions 80mm diameter x 95mm height.



SUB-MB-6	6 Ceramic Sublimation Money Boxes	12.95
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Water Bottles

These water bottles are ideal for children to take with them to school. They also fit into cycle water bottle holders and are great for sports. They are supplied with mouthpiece and 2 cap fixings. Dimensions 70mm diameter x 160mm height to neck, 198mm height with lid.

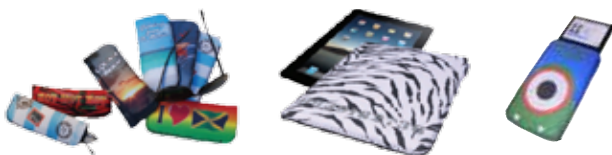
N.B. Print using 6oz element kit for Single Mug Press



SUB-BOT2-S	600ml Water Bottle with Silver Finish	3.10
SUB-BOT2-W	600ml Water Bottle with White Finish	3.10
SUBA-ELEMKIT	6oz Element Kit for Single Mug Press	75.00

Soft Rubber Cases, Covers and Pouches

These products are made from a 3.5mm thick black rubber compound which offers great protection and they have a white jersey surface which can be personalised using sublimation or LIT.



SL-GLS10	10 Small Glasses Pouches (60 x 155mm)	10.50
SL-GLL10	10 Large Glasses Pouches (75 x 160mm)	12.60
SL-NETB	Netbook Cover (270 x 190mm)	2.90
SL-IPAD	iPad Cover (255 x 190mm)	2.90
SL-MP3L10	10 Large iPhone/iPod/MP3 Cases (78 x 130mm)	12.60

Leather Cases

Leather cases for phones. Magnetic fastening and inside out slots for credit cards. Made from durable faux leather PU with printable white polyester surface.



SUB-PHONE1-2	Leather Case for iPhone 5/5S	3.45
SUB-PHONE1-4	Leather Case for Samsung S4	3.45

Bags



SL-BG1-WH	White Gym Bag (450 x 340mm)	1.99
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Back Packs

These children's backpacks comprise of two zipped compartments - one large section and a smaller front pocket. In addition they have two mesh pockets on either side. The straps are padded and adjustable.



SUB-BP1-COL	Child's Back Pack (available in red or blue). Please state colour required when ordering.	7.50
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Bookmarks

These bookmarks are made from 0.5mm thick aluminium with rounded edges. They produce a high gloss finish. Dimensions 130 x 35mm.



SUB-BM1-10	Pack of 10 Metal Bookmarks. 35 x 130 x 0.5mm. Aluminium.	7.50
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Clocks

The glass clocks produce lovely gloss and contemporary finish. Square or round aluminium clocks also available.



SUB-CLCK3	Glass Clock, 200mm diameter.	9.95
SUB-CLCK4R	Aluminium Round Clock, 198mm diameter.	5.80
SUB-SLCK4T	Aluminium Rectangular Clock, 140 x 255mm.	5.50
SUB-ENDFAB1	HD Endura Fabric 1680 x 1000mm. Used to absorb moisture when pressing onto Metal.	12.50

Jigsaws



SUB-JIG30	Sublimation Jigsaw Puzzle (30 pieces) 250 x 175mm medite (MDF) board	3.70
SUB-JIG60	Sublimation Jigsaw Puzzle (60 pieces) 360 x 250mm medite (MDF) board	6.25

Image Transfer

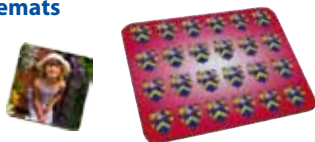
Sublimation Products & Materials Plus Printer Consumables

Mouse Mats



SL-MAT10-WF	10 Mouse Mats (250 x 190 x 6mm) White fabric surface with black rubber base	9.50
SL-MAT10-RWF	10 Round Mouse Mats (190mm dia, x 6mm) White fabric surface with black rubber base	10.50

Coasters & Placemats



SUB-CS25	25 Square Coasters (95 x 95 x 4mm). Glossy finish with cork base.	21.00
SUB-CSM10	10 Aluminium Metal Coasters (100 x 100mm).	7.50
SUB-PM10	10 Place Mats (250 x 190 x 5mm). Glossy finish with cork base.	35.70

Caps For details see page 109.

SUB-CAP-COL	Polyester Cap (available in 30 colours please state when ordering)	2.80
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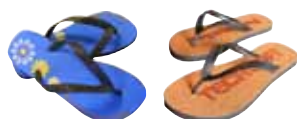
T-Shirts For details see page 109.

SUB-TS1-1-WH	White T-Shirt, 100% polyester. (Child Ages 3/4 - 12/13, XS-XL please state when ordering)	4.80
SUB-TS1-2-WH	White T-Shirt, 100% polyester. (Adult Sizes XS-XL, 35" - 50" chest please state when ordering)	4.30

Polo Shirts For details see page 109.

SUB-PS1-2-WH	White Polo Shirt, 100% polyester. (Adult Sizes XS-XXL, 35" - 50" chest please state when ordering)	5.50
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Flip Flops



SL-FLIPK10	10 Pairs Kids Flip Flops (Small 17cm, Medium 19cm, or Large 22cm)	33.60
SL-FLIPA10	10 Pairs Adults Flip Flops (Small size 4-6, Medium size 7-9 or Large size 10-12)	47.25
SL-FLIPTOOL	Flip Flop Tool (to attach straps)	28.90

Baby Items

These large bibs are made of a microfibre material which is not only soft but very absorbent. They are machine washable and the image will not fade over time.



SL-BIB-COL	Baby bib. Coloured trim available in pink, blue or white. Please specify colour when ordering.	2.50
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Teddy Bear with White T-Shirt



SUB-BEAR10	10" Teddy Bear with one white T-Shirt	6.45
SUB-BEAR10-S	Spare white sublimation shirt for SUB-BEAR10	1.50

LIT Printer Consumables



TMT OKI C612N A4

LITA-C612N-B	Black Toner Cartridge	74.00
LITA-C612N-CMY*	Toner Cartridge	149.00
LITA-C612ND-B	Black Imaging Drum	52.00
LITA-C612ND-CMY*	Imaging Drum	74.00
LITA-C612N-TBU	Transfer Belt Unit	76.00
LITA-C612N-FU	Fuser Unit	110.00

TMT OKI C610N A4

LITA-C610N-B	Black Toner Cartridge	74.00
LITA-C610N-CMY*	Toner Cartridge	129.00
LITA-C610ND-B	Black Imaging Drum	47.00
LITA-C610ND-CMY*	Imaging Drum	83.00
LITA-C610N-TBU	Transfer Belt Unit	77.00
LITA-C610N-FU	Fuser Unit	98.00

TMT OKI 831N A3

LITA-C831N-B	Black Toner Cartridge	75.00
LITA-C831N-CMY*	Toner Cartridge	156.00
LITA-C831ND-COL	Imaging Drum	112.00
LITA-C831N-TBU	Transfer Belt Unit	79.00
LITA-C831N-FU	Fuser Unit	76.00

TMT OKI C7411WT A4 WHITE

LITA-C7411WT-W	White Toner	260.00
LITA-C7411WT-CMY*	Toner Cartridge	138.00
LITA-C7411WTD-W	White Imaging Drum	122.00
LITA-C7411WTD-CMY*	Imaging Drum	85.00
LITA-C7411WT-TBU	Transfer Belt Unit	65.00
LITA-C7411WT-FU	Fuser Unit	83.00

For TMT OKI C711WT, 5750N, 821N, MC860D/DTN/DTX, C5600N, C8800N, Konika Minolta 5430DL & Epson Aculaser C8600 see www.techsoft.co.uk/Products/ImageTransferLITMaterials/LITPrinterConsumables.

Sublimation Printer Consumables



For Sawgrass Virtuoso SG800

SUBA-SG800-B	Black Ink Cartridge 75ml	60.00
SUBA-SG800-CMY*	Colour Ink Cartridge 68ml	60.00
SUBA-SG800-IC	Ink Collection Unit for Sawgrass SG800	42.00

For Sawgrass Virtuoso SG400 (or low capacity inks for SG800)

SUBA-SG400-B	Black Ink Cartridge 42ml	55.00
SUBA-SG400-CMY*	Colour Ink Cartridge 29ml	40.00
SUBA-SG400-IC	Ink Collection Unit for Sawgrass SG400	42.00

For Ricoh SG7100DN

SUBA-SG7100-B	Black Ink Cartridge 68ml	63.00
SUBA-SG7100-CMY*	Colour Ink Cartridge 60ml	63.00
SUBA-SG3110-IC	Ink Collection Unit for Ricoh SG3110DN/SG7100DN/SG7100	35.00

For Ricoh SG3110DN (or low capacity inks for SG7100DN)

SUBA-SG3110-B	Black Ink Cartridge 42ml	58.00
SUBA-SG3110-CMY*	Colour Ink Cartridge 29ml	42.00
SUBA-SG3110-IC	Ink Collection Unit for Ricoh SG3110DN/SG7100DN/SG7100	35.00

For Ricoh GX7700, GXe3300N & GX7000 see www.techsoft.co.uk/Products/ImageTransferSublimationMaterials/SublimationPrinterConsumables

*When ordering, where CMY is included in the order code, please change this to specify whether cyan, magenta or yellow is required.



Unique Photo Impact Printing System for Metals and Hard Plastics

METAZA in Education

METAZA transfers subtle graduations and fine details onto smooth, flat, metal and acrylic surfaces. Surfaces need to be finished but not necessarily polished – a satin finish can give equally rewarding results. This exciting tool is particularly effective for embellishing jewellery projects, where the unique and fascinating impression created is sophisticated and quite unlike anything else to be seen in student project work. More widely, METAZA is great for personalising and transforming all sorts of projects including phone charms, luggage tags, ID tags, awards, plaques, and badges. METAZA is an ideal resource for mini-enterprise activities - it is simple to use and adds significant value to quite mundane objects. On a more utilitarian note, the unique nature of a METAZA image makes it an ideal tool for permanent security marking.

Unique Technology

The remarkable METAZA MPX-95 is like no other machine for creating permanent images onto hard materials.

Rather than etching, engraving or printing onto the material surface, METAZA uses innovative dot impact technology to create thousands of tiny facets that reflect light and produce an extraordinarily detailed 3D-effect. Images are almost holographic, impossible to produce by other means and because they are 'in' and not 'on' the surface, they are permanent. Because the technique does not cut the surface in any way, it is particularly suitable for plated metals where conventional engraving would break through to the base metal.

Designing for METAZA

2D Design is the ideal tool to generate original designs for METAZA and you could, of course, include photographs, text, patterns and shapes in your design. The design is then imported into METAZAStudio software which is used to 'size' the design to suit the machine and workpiece. Image controls let you adjust contrast and brightness which, in effect, are adjusting the depth and density of the facets which will impress into the surface. METAZAStudio software is supplied with the machine and includes basic tools for adding shapes and text, and for cropping or clipping images. If original design is not a priority, you could even import clipart or digital photographs directly into METAZAStudio.

Machine Set-Up

Output from METAZAStudio couldn't be easier. Accurate previews give confidence about the outcome and 'printing' is completely safe (no dust or sharp cutters to worry about) - and remarkably swift. The workpiece is simply slotted or clamped onto the machine bed and a typical pendant design is likely to be finished in only a few minutes.

METAZA could well find a home in a creative and enterprising Design and Technology department.

Specification

Max. printing area:	80(W) x 80(D) x 70(H)mm
Max. object size:	100(W) x 200(D) x 40(H)mm
Printing stylus:	Diamond Tip
Print resolution (dpi):	529(High), 353(Photo), 265(Text), 1058(Vector)
Interface:	USB
Weight:	12kg
Dimensions:	286(W)x383(D)x308(H)mm



What's Included

- Metaza Studio Software

Warranty

UK Mainland & Ireland: 1 Year Return to Base
Elsewhere: 1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

RL-METAZA-MPX95	Roland Metaza MPX-95	3,995.00
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Metal Clay is a new and unique material suitable for both GCSE and A Level Design & Technology, and Art courses.

Precious Metal Clay - Silver

Precious Metal Clay (PMC) is a modern material and already revolutionising what jewellers and designers can create in solid silver without the need for casting equipment. Despite its name, Precious Metal Clay is not 'clay' at all, but a paste made from fine ground particles of pure silver, organic binder and water. It works like traditional clay so can be moulded and sculpted in the usual way, or reduced with water into a 'slip' consistency for joining PMC pieces together, or filling small cracks.

The 'magic' happens when the design is fired. The water evaporates and the organic binder burns away leaving a 99% pure solid silver piece. As such, it can be hallmarked as Fine Silver and (if needs be) can be silver-soldered. Care needs to be taken with any heat process like this, but the materials themselves are non-toxic.

For small projects, firing can be done with a torch and only takes a couple of minutes. It is important to fire PMC evenly so for larger pieces the Evenheat Pro-Set kiln provides an ideal solution. The kiln is pre-programmed to give just the right heat and time cycle and is essential for firing complex pieces, hollow forms, and designs that include other materials such as ceramic, glass or other metals. The kiln can also be used for enamelling, glass fusing and slumping.

TechSoft are delighted to offer not only the PMC3 silver clay, but also the new PMC Flex silver clay which has an even longer working time in its 'clay' state – ideal for student work. Both types can be fired with either a torch or a kiln.

Once fired PMC appears white (the natural colour for silver) and must be polished. A stainless-steel brush will achieve a fine matt finish which can then be worked into a high lustre using a burnisher or polishing mop. Even easier is to polish by tumbling in a barrel polisher/tumbler with water, a little soap and some stainless steel shot. This technique has the added advantage of work-hardening the silver to strengthen it – important for delicate items such as rings.

Creative Metal Clay – Bronze and Copper

Creative Metal Clay (CMC) is similar to PMC but contains bronze or copper instead of silver. As such, it is a cheaper alternative – ideal for school use where budgets may be tight.

Use in Education

TechSoft are always looking for new and innovative products to help students get even more benefit from our CAD/CAM resources. These metal clays provide an excellent opportunity for creating 'clever' projects of high-value using laser-cut or milled 2D moulds. 3D moulds can be created using even our smallest iModela machine and softer materials such as modelling wax (see page 86) makes an ideal mould-material. Projects are likely to be small so costs can be controlled and throughput can be manageable for individual or groups of students. By using CAD/CAM for mould making, designs can be thoroughly checked in CAD and any number of moulds can be made using small amounts of cheaper material before committing to the metal clay. Metal clay is an excellent material for free-hand modelling but the use of moulds allows for tighter control and limits the chance for wastage.



The chosen design is created in 2D Design, SolidWorks or taken from a 3D scanned image. Any TechSoft/Roland CNC mill is then used to produce a mould or pattern. In this case a pattern is being milled from machining wax.



A flexible mould is produced from the pattern by hand-forming moulding compound around it. The compound sets quickly making for uninterrupted progress.

PMC3 is pressed into the mould, allowed to dry, carefully removed, and then thoroughly dried in a warm place before torch or kiln firing. This model has simply been brush-finished and awaits burnishing and polishing.

Evenheat Set Pro Kiln

The Evenheat Set Pro Kiln is a multi-functional kiln suitable for firing copper, bronze, silver and gold metal clay as well as items of ceramics. It can also be used for enamelling, glass fusing and slumping.

The kiln is user-programmable but comes with a large number of pre-set programmes, including those specifically for the PMC clays.



Specifications

Power:	1.44kW
Weight:	13.5kg
Chamber Dimensions:	200(W) x 200(D) x 150(H)mm
External Dimensions:	320(W) x 320(D) x 380(H)mm
Power Requirements:	230V, 6.3A, 13A Socket
Warranty:	1 Year Return to Base (UK Mainland & Ireland) 1 Year Return and Collect (ElseWhere)

Prices £*

*See Pricing Information on page 2

Starter Kits

PMC-KITSTARTB	Precious Metal Clay Basic Starter Kit (inc. PMC3 6.3g, Badger Balm (release agent), Paintbrush, PMC Workmat with sizing scales, Teflon sheet, Bits & Bobs Mould H1, Sandpaper, Basic Hand Drill, 2 Jump Rings, Necklace cord, Kiln firing voucher, Instructions)	50.00
PMC-KITSTARTP	Precious Metal Clay Super Starter Kit (inc. PMC3 9kg, Badger Balm (release agent), Tweezers, 2 1.5 Spacers, Roller, Claychaper, Paintbrush, Workmat with PMC sizing, Teflon sheet, Sandpaper, Rubber Block, Stainless Steel Brush, Torch, Torch Block, Metal Burnisher, Circle Cutter, Jump Rings, Necklace Cord, Mini Texture Mat, 3 Fire Proof Gemstones, Instructions)	105.00
PMC-KITJ	Jewellery Making Kit (Class Set) (inc. 10 PMC3 6.3g packs, 2 stainless steel brushes for polishing, 10 workmats, butane gas torch, torch firing block, olive oil spray, 4 paintbrushes, 2 clay shapers, fine sandpaper, hand drill, cord for stringing, selection of bead and jump rings)	320.00
PMC-KITF	Fossil Making Kit (Class Set) (inc. 10 PMC3 6.3g packs, 2 stainless steel brushes for polishing, 10 workmats, butane gas torch, torch firing block, olive oil spray, 4 paintbrushes, 2 clay shapers, fine sandpaper, large mould compound, rubber block, real fossils)	328.00

Handprinting Equipment

PMC-KITHF1	Hand and Foot Printing Kit (inc. inkless wipe and 2 handprinting sheets - refill for PMC-KITH)	5.80
PMC-KITPHOTO	Photopolymer Kit exc. Lamp (Contains 2 photopolymer plates each 100x80mm, backing board, foam and glass, soft scrubbing brush and full instructions.)	16.65
PMC-KITPHOTO2	Photopolymer Kit with Lamp (Contains 2 photopolymer plates each 100x80mm, backing board, foam and glass, soft scrubbing brush and full instructions.)	58.30
PMC-REFILPHOTO	Photopolymer Refill (2 off 100x80mm plates)	8.30

Kiln

PMC-KILN360	Evenheat Pro-Set Kiln	663.00
PMC-KILNSHELF	Shelf for Evenheat Pro-Set Kiln	12.50
PMC-KILNPOSTC4	Pack of 4 Kiln Post - Ceramic (For Evenheat Pro-Set Kiln)	9.20
PMC-KILNPILL	Kiln Pillow for Evenheat Pro-Set Kiln	3.55
PMC-KILNTONG	Kiln Tongs	22.95

Support Materials

PMC-MC-100	Moulding Compound 100g (2 x 50g)	12.10
PMC-MC-300	Moulding Compound (2 x 150g)	22.95
PMC-BALMBADG	Badger Balm - Natural Scent (0.75oz)	4.99

Bronze Clay

PMC-CLB-50	Creative Bronze Clay (50g)	12.45
PMC-CLB-100	Creative Bronze Clay (100g)	20.80
PMC-CLB-200	Creative Bronze Clay (200g)	37.50
PMC-SYRINB10	Creative Bronze Clay Syringe 10g	12.50

Creative Copper Clay

PMC-CLC-50	Creative Copper Clay (50g)	12.45
PMC-CLC-100	Creative Copper Clay (100g)	20.80
PMC-CLC-200	Creative Copper Clay (200g)	37.50
PMC-SYRINC10	Creative Copper Clay Syringe 10g	12.50

Silver Clay

PMC Flex - NEW, Ideal for schools with its longer working time

PMC-CLF-5	Silver Clay, PMC Flex (5g Silver)	9.35
PMC-CLF-15	Silver Clay, PMC Flex (15g Silver)	27.15
PMC-CLF-30	Silver Clay, PMC Flex (30g Silver)	52.85
PMC-CLF-60	Silver Clay, PMC Flex (60g Silver)	102.00

PMC3

PMC-CL3-6	Silver Clay, PMC3 (6.3g Silver)	11.75
PMC-CL3-9	Silver Clay, PMC3 (9g Silver)	16.45
PMC-CL3-16	Silver Clay, PMC3 (16g Silver)	28.95
PMC-CL3-25	Silver Clay, PMC3 (25g Silver)	44.00
PMC-CL3-50	Silver Clay, PMC3 (50g Silver)	85.00
PMC-PASTE	Silver Clay, PMC3 Paste	25.00

Cutters and Moulds

PMC-CUTDIA6	Pk of 6 Diamond Cutters	11.25
PMC-CUTHRT6	Pk of 6 Heart Cutters	11.25
PMC-CUTOV6	Pk of 6 Oval Cutters	11.25
PMC-CUTSQ6	Pk of 6 Square Cutters	11.25
PMC-CUTRT6	Pk of 6 Rectangular Cutters	11.25
PMC-PLATEBR4	4 Brass Plates (chips, beech, pebble and wave)	24.85
PMC-MOULDBB3	3 Bits 'n' Bobs Moulds	24.90
PMC-MOULDS5	Seashore Mould	8.30
PMC-MOULDORC	Orchid Mould	8.30

Accessories

PMC-TORCHSI	Torch - Self Ignition & Lock	28.75
PMC-TORCHBL	Torch Block	4.60
PMC-BRUSHSSW	Stainless Steel Wire Brush - Std Bristle	4.35
PMC-BRUSHBRL	Brass Brush (long bristle)	4.35
PMC-PICKLEAN1	150g Picklean (for removing firescale from metals such as copper, bronze and silver)	4.99
PMC-SANDP5	Sandpaper (Pack of 5)	0.85
PMC-MATRUB6	6 Rubber Mats - Square	39.80
PMC-TOOLC	Clean up / Carving Tool	4.99
PMC-TOOLWIP2	Clay Shaper	4.50
PMC-BURNMET	Metal Burnisher	5.10
PMC-KITTUMB	Tumbler Kit (includes Mixed Stainless Steel Shot & Tumbler Soap)	152.00
PMC-SYRIN	Syringe	18.50
PMC-SHEETSQ	PMC+ sheet (square)	13.50
PMC-SPROLL	Spacer & Roller Set	4.99
PMC-MAT	Work Mat	2.10
PMC-SHEETEF5	Pk of 5 Telfon Sheets	4.55
PMC-BRUSHPNT2	Set of 2 Paint Brushes	2.90
PMC-DRILLH	Hand Drill Set	12.90
PMC-DISP1	Olive Oil Dispenser	4.55

Art & Design Equipment

Screen Printing / Printing Press

Print Down Cabinets



These print-down cabinets expose indirect and direct stencils onto all types of film with sharpness and precision. Exposure is provided by mercury vapour lamps via a 6mm toughened glass screen. A handy light box facility aids setting up, viewing and spotting out. Exposure times are, of course, digitally controlled.

Specification	AR-SPCAB1	AR-SPCAB2
Weight:	45kg	115kg
Dimensions:	880(W) x 700(D) x 850(H)mm	1310(W) x 910(D) x 960(H)mm
Power Requirements:	240V 2.4A, 13A Socket	
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return to Base	

Prices £*		*See Pricing Information on page 2
AR-SPCAB1	Print Down Cabinet - Exposure Area 508 x 382mm	1,750.00
AR-SPCAB2	Print Down Cabinet - Exposure Area 762 x 508mm	2,755.00

A2 / A1 Screen Printing Systems



A1 System

These superb screen printing systems are supplied complete with a stand and whisper-quiet vacuum system. Both models will accommodate material up to 50mm thick and have frame-lift angle stops which are adjustable to zero. Vacuum operation is automatic as the screen is lowered for printing. The melamine printing bed and work surfaces are ink and solvent resistant. These machines are robustly constructed for continuous use.

Specification	A2	A1
Vacuum bed area:	508 x 380mm	594 x 840mm
Max outside screen size	785 x 635mm	1040 x 725mm
Weight	43kg	60kg
Dimensions:	880(W) x 850(D) x 900(H)mm	1092(W) x 1200(D) x 900(H)mm
Power Requirements:	240V, 13A Socket	
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect	

Prices £*		*See Pricing Information on page 2
AR-SPBED-A2S	Screen Printing Bed A2 with stand	1,412.00
AR-SPBED-A1S	Screen Printing Bed A1 with stand	1,764.00

Screen Washout Booth



This screen washout booth is ideal for stencil development, or to wash out screens for re-use. The booth is suitable for water-based screen printing products and is constructed from polypropylene on a powder-coated steel base frame. The unit is fitted with a mains water valve on the frame to which the optional handspray can be attached. If local regulations require it, the optional waste treatment unit will filter and trap waste emulsions and solid material.

Prices £*		*See Pricing Information on page 2
AR-SPTROUGH4	Polypropylene Screen Washout Booth, inner size 1220 x 1220mm. <i>Must be plumbed in.</i>	985.00
ARP-SP-SPR1	Handspray on hose from leg-mounted valve for AR-SPTROUGH4	92.00
AR-WASTE1	Polypropylene Gravel Filtration Unit for the treatment of water waste from stencil stripping. <i>(Single stage unit, area 600 x 500mm). Must be plumbed in.</i>	470.00

Print Press Horizontal



Suitable for lino and woodcut prints as well as etchings. Stable aluminium cast frame, with 80mm diameter steel rollers. The printing table is made from multiplex with a bolted, zinc-plated 2.5mm thick steel plate. The prints are guided by four bearings mounted in the sides. N.B. Colour may vary.

Specification	
Weight:	34kg
Printing Table:	500 x 700mm
Warranty:	UK Mainland: 2 Years Return to Base Elsewhere: 2 Years Return and Collect

Prices £*		*See Pricing Information on page 2
AR-HPRESS1-300	ABIG Horizontal Printing Press, 300mm wide with plate size 300 x 700mm <i>(inc. 3mm felt sheet)</i>	625.00
AR-HPRESS1-350	ABIG Horizontal Printing Press, 350mm wide with plate size 350 x 700mm <i>(inc. 3mm felt sheet)</i>	695.00
AR-HPRESS1-400	ABIG Horizontal Printing Press, 400mm wide with plate size 400 x 700mm <i>(inc. 3mm felt sheet)</i>	745.00
AR-HPRESS1-500	ABIG Horizontal Printing Press, 500mm wide with plate size 500 x 700mm <i>(inc. 3mm felt sheet)</i>	790.00

Drying Racks



AR-DRYRACK11



AR-DRYRACK16

These robust racks feature steel construction for strength, with plastic-coated racks for durability and easy maintenance. The smaller unit will easily accommodate A3 work, the larger unit will be needed for A2 sizes.

Both racks provide a compact solution for drying student's art work.

Prices £*		*See Pricing Information on page 2
AR-DRYRACK16	20 Shelf Double Sided Table Top Drying Rack, accommodates paper A5 to A3 size. 750 x 500 x 360mm	49.00
AR-DRYRACK11	40 Shelf Mobile Drying Rack, shelf size 600 x 450mm, 4 castors <i>(2 lockable)</i>	99.00

LightPad Lightbox

The new LightPad series of lightboxes uses super-bright LEDs for low energy consumption, cool operation and a lifetime of trouble free operation. No more dead bulbs to change! They provide perfect, even illumination to a double layered worksurface housed in a slim, yet durable, aluminium frame. Supplied complete with 240V power adaptor.



Prices £*		*See Pricing Information on page 2
AR-LIGHTBOX14	LightPad A930 (A4, 229 x 305mm)	130.00
AR-LIGHTBOX15	LightPad A940 (A3, 305 x 432mm)	185.00
AR-LIGHTBOX16	LightPad A950 (A2, 432 x 610mm)	240.00

Rotatrim Professional Trimmers



The Rotatrim system uses a small rotary blade to cleanly cut paper and card. Simple guarding keeps fingers well away from sharp edges, but the edge being cut remains in full view. The laminated MDF baseboard is graduated for accurate work placement, and a transparent, self-clamping strip secures the work while still allowing a clear view of the cut. These well-proven machines feature self-sharpening tungsten steel blades and twin chromed-steel guide rails to ensure consistent accuracy and long life. A patented Overload Protection system on M30 models and above will protect the machine from over-ambitious use. Rotatrim machines include a five-year warranty and lifetime servicing free of labour charges.

Specification	M15 A4+	M20 A3+	M30 A2+	M36 A1+
Cutting Length:	382mm	508mm	763mm	914mm
Cutting Capacity:	3mm	3mm	3mm	2mm
Warranty:	UK Mainland: 5 Years Return to Base Elsewhere: 5 Years Return and Collect			

Prices £*		*See Pricing Information on page 2
AR-CUTTRIM12	Rotatrim Professional M15 A4+ Trimmer	133.00
AR-CUTTRIM14	Rotatrim Professional M20 A3+ Trimmer	165.00
AR-CUTTRIM16	Rotatrim Professional M30 A2+ Trimmer	224.00
AR-CUTTRIM16A	Stand for M30 with integrated waste catcher	135.00
AR-CUTTRIM17	Rotatrim Professional M36 A1+ Trimmer	256.00
AR-CUTTRIM17A	Stand for M36 with integrated waste catcher	140.00

Airbrush Kit



Airbrushing is the technique of choice for achieving professional standards of finish for models and prototype products. In addition, airbrushing provides Graphic Artists and Designers with a uniquely creative tool for image making on a wide variety of media. This complete kit contains everything you need to get started including a market-leading Iwata Revolution BR airbrush and an Iwata Studio-series Silver Jet compressor. To help you start without delay, the kit also includes LifeColour acrylic paints and airbrush cleaners.

Prices £*		*See Pricing Information on page 2
AR-AIRBRUSH2	Airbrush Kit c/w Silver Jet compressor. (Contains Iwata Revolution BR Airbrush, Iwata Studio Series Silver Jet Compressor, Medea Airbrush Cleaner 188ml for use with acrylics; Premi Air Foaming Airbrush Cleaner 150ml for use with acrylics; Premi Air Liquid Reamer Airbrush Cleaner 150ml for use with enamels; LifeColor Matt White 22ml; LifeColor Matt Black 22ml; LifeColor Thinner 22ml, Set of 6 LifeColor 22ml Acrylic Paints)	250.00

Table / Studio Easels

We supply a range of studio easels - see www.techsoft.co.uk/Products/ArtsCrafts/Easels for details.

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3Doodler

3Doodler Create



Is it a 3D Printer or is it a Modelling Tool?

It is both of these things but 3Doodler is certainly not a toy - although it is great fun to use! 3Doodler works in the same way as FDM 3D Printers by feeding a plastic filament into a heated liquefier head and extruding this as a very fine filament of sticky molten material. This fine filament is then extruded onto a base, or onto itself, so that you can quickly build up layers to create 3D models. Provided the filament is laid down while still hot, the layers will fuse into a solid plastic model. The shape, strength and solidity of the model is controlled entirely by the user - the more densely you lay down the filament, the more solid (and strong) will be the model. It really is that simple - but 3Doodler is clever too. 3Doodler is an ingenious hand-held device that not only feeds, melts and extrudes the filament but finely controls the process too. By selecting the material to be used from the LCD display, you will be selecting extrusion speed and temperature. This allows a wide variety of thermo-plastic materials to be used and provides the optimum conditions for the type of modelling you want to do.

Where can I use 3Doodler?

3Doodler is great for free-form modelling plastic parts - even for special models 'in the air'. Models can be entirely expressive forms or be functional parts for projects. Because 3Doodler uses the same materials as 3D Printers, it can even be used for repairing, beefing-up or modifying 3D printed parts without the need to edit a CAD file and run the job again.

Is 3Doodler Safe for Kids?

Materials such as PLA, ABS and FLEXY are commonly used in children's toys and food packaging and, therefore, completely safe. The extrusion tip will be hot but careful attention to ergonomics makes it easy and natural to keep hands and fingers away. The extruded filament is hot but only for a very short time - normal supervision and instruction will be sufficient to ensure teachers can confidently allow 3Doodler to be used in their classroom.

What Materials does 3Doodler Use?

Because 3Doodler closely controls temperature and feedrate, a wide variety of materials can be used. These include:

ABS - for strong models in range of colours

PLA - a general purpose material for lower-cost models in a range of colours

FLEXY - for creating moving joint/parts with maximum stretch

In addition, specially 'filled' grades of filament will give the appearance of wood, stone or brick. Thermo-chromic, luminous and flexible filaments are also available. 3Doodler is supplied with a range of sample materials to help you get started.

Prices £*		*See Pricing Information on page 2
AR-3DP2-PK1	3Doodler Create Full Education Bundle. Includes 12 3Doodler Create Pens, 1200 filament strands, 12 Create DoodlePads, 4 Nozzle sets, 2 JetPacks, 2 project books, 1 3Doodler General EDU booklet, 3 User manuals, 6 Quick Start Guides, 1 USB stick, 24 stickers, 6 unblocking tools, 6 nozzle remover tools, 12 screwdrivers.	999.00
AR-3DP2-PK2	3Doodler Create Half Education Bundle. Includes 6 3Doodler Create Pens, 600 filament strands, 6 Create DoodlePads, 2 Nozzle sets, 1 JetPack, 1 project book, 1 3Doodler General EDU booklet, 3 User manuals, 3 Quick Start Guides, 1 USB stick, 12 stickers, 6 unblocking tools, 3 nozzle remover tools, 6 screwdrivers.	599.00
<i>Single Pen</i>		
AR-3DPEN2	3Doodler Create, 3D Printing Pen c/w pack of PLA and ABS filament	99.00
<i>Mixed Colour Packs</i>		
AR-3DP2P25MP-COL	Mixed Colour Pack of 25 PLA 3mm filament for 3Doodler. Available in 8 colour sets - see website for details.	9.99

AR-3DP2A25MP-COL	Mixed Colour Pack of 25 PLA 3mm filament for 3Doodler. Available in 3 colour sets - see website for details.	9.99
<i>Single Colour Packs</i>		
AR-3DP2P25-COL	Pack of 25 PLA 3mm filament for 3Doodler all the same colour. Available in 39 colours - see website for details.	9.99
AR-3DP2A25-COL	Pack of 25 ABS 3mm filament for 3Doodler all the same colour. Available in 15 colours - see website for details.	9.99
AR-3DP2P100-COL	Pack of 100 PLA 3mm filament for 3Doodler all the same colour (packed in a tube). Available in 39 colours - see website for details.	29.99
AR-3DP2A100-COL	Pack of 100 ABS 3mm filament for 3Doodler all the same colour (packed in a tube). Available in 15 colours - see website for details.	29.99
AR-3DP2F100-COL	Pack of 100 FLEXY filament for 3Doodler all the same colour (packed in a tube). Available in 15 colours - see website for details.	34.99
<i>Glow in the Dark Material</i>		
AR-3DP2P25-GL1	Pk of 25 PLA 3mm filament - Glow in the dark	11.99
AR-3DP2P100-GL1	Tube of 100 PLA 3mm 3Doodler filament - Glow in the dark	32.99
AR-3DP2A25-GL1	Pk of 25 ABS 3mm filament for 3Doodler - Glow in the dark	11.99
AR-3DP2A100-GL1	Tube of 100 ABS 3mm 3Doodler filament - Glow in the dark	32.99
<i>Accessories</i>		
AR-3DP2-STAND2	3Doodler 2.0 DoodleStands	9.99
AR-3DP2-NOZZ2	3Doodler 2.0 Nozzle Set	19.99
AR-3DP2-PED1	3Doodle Foot Pedal	19.99
AR-3DP2-JET1	3Doodler 2.0 JetPack	39.99
AR-3DP2-PAD1	DoodlePad	9.99
AR-3DP2-BOOK1	3Doodler Book	24.99

3Doodler Start



The 3Doodler Start Pen and Eco-Plastics are specially designed to be completely safe for kids aged 8 years and above. There are no hot parts on the pen and our Eco-Plastic is made from food-safe materials, is non-toxic, BPA-free, and completely biodegradable in your household compost. The pen nozzle and plastic can safely be touched with no burn risks. No mess, eco-friendly plastics. Allows children to literally draw in the air with only one speed and one temperature.

Prices £*		*See Pricing Information on page 2
AR-3DP3-PK1	3Doodler Start Full Education Bundle. Includes 12 3Doodler Start Pens, 1200 filament strands, 12 Start DoodlePads, 24 DoodleBlocks, 2 Activity Guides, 2 Project Books, 1 3Doodler General EDU booklet, 1 User manual, 1 USB stick, 24 stickers, 12 Micro USB Cable	499.00
AR-3DP3-PK2	3Doodler Start Half Education Bundle. Includes 6 3Doodler Start Pens, 600 filament strands, 6 Start DoodlePads, 12 DoodleBlocks, 1 Activity Guide, 1 Project Book, 1 3Doodler General EDU booklet, 1 User manual, 1 USB stick, 12 stickers, 6 Micro USB Cable	299.00
<i>Single Pen Packs</i>		
AR-3DPEN3-PK1	3Doodler Start, 3D Printing Pen - Regular Box Set	49.99
AR-3DPEN3-PK2	3Doodler Start, 3D Printing Pen - Mega Box Set	99.99
<i>Eco-Plastic Material for 3Doodler Start</i>		
AR-3DP3P24-COL	Pack of 24 Eco-Plastic 150mm Strands all the same colour. Available in 9 colours - see website for details.	4.99
<i>Accessories</i>		
AR-3DP3-SET1	Doodle Block Kit Jewellery Set	14.99
AR-3DP3-SET2	Doodle Block Kit Vehicle Set	14.99
AR-3DP3-SET3	Doodle Block Kit Rocket/Robot Set	14.99

AR-3DP3-SET4	Doodle Block Kit Emoji/Symbol Set	14.99
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Pottery Equipment

Pugmills

Horizontal Pugmill



A robust pugmill is an essential tool to prepare and re-cycle partly-dried clay. This entry level machine will be ideal for schools and colleges where clay work is an occasional activity within general Art and Design teaching. Scrap and waste clay is manually fed into the hopper

which features a safety grid to protect the operator. The machine has thermal overload protection and is available in single or 3-phase power options. Although entry level, this machine is heavily-engineered for long life and will need securing to a strong bench or stand. The main aluminium body castings split for easy cleaning.

Specification	
Body:	100mm aluminium
Extrusion:	50mm
Output:	190-200kg per hour (approx)
Motor:	0.37kW (0.5hp)
Weight:	36.5kg
Dimensions:	280(W) x 800(D) x 470(H)mm
Power Requirements:	415V 0.37kW or 240V 0.37kW, Fused switch-disconnector
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £*		
<small>*See Pricing Information on page 2</small>		
AR-PUGMILL2S	Horizontal Pugmill G49E, 1ph	1,420.00
AR-PUGMILL2T	Horizontal Pugmill G49E, 3ph	1,420.00
AR-PUGSTAND2	Stand for AR-PUGMILL2 / AR-PUGMILL3	295.00

Power Feed Horizontal Pugmill



This mid-range pugmill has the power and capacity needed to support a dedicated pottery facility in most schools and colleges. The machine has the same rugged build-quality as the vertical model, but has a number of features to make clay preparation virtually effortless. The powered-feed system eliminates the need for a feed handle and plunger which promotes

more continuous working and demands far less strength and effort from the user. During loading the drive is isolated via an interlocked loading lid, preventing contact with the feed rollers whilst in use. The pugmill is fitted with a hopper safety grid and thermal overload safety switch as standard. Alloy blades and a geared reduction drive support the quality engineering featured in this well-designed machine.

Specification	
Body:	150mm aluminium
Extrusion:	75mm
Output:	300kg per hour (approx)
Motor:	0.75kW (1hp)
Weight:	90kg
Dimensions:	1300(W) x 230(D) x 460(H)mm
Power Requirements:	415V 0.75kW or 240V 0.75kW, Fused switch-disconnector
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £*		
<small>*See Pricing Information on page 2</small>		
AR-PUGMILL5	Power Feed Horizontal Pugmill	3,365.00
AR-PUGSTAND2	Stand for AR-PUGMILL2 / AR-PUGMILL3	295.00

Vertical Pugmill



This vertical pugmill will suit users needing to routinely re-cycle and prepare larger quantities of clay. In addition to greater power and capacity than the standard horizontal pugmill, this machine is supplied with a sturdy stand that, once bolted to the floor, means the machine has a compact 600mm x 600mm footprint – a great advantage where space is limited. Clay is manually fed into the hopper and thermal overload switching prevents damage to the motor should operators become over-enthusiastic. The machine is strongly-engineered and features high torque reduction gearing, alloy blades and a split main body for cleaning.

Specification	
Body:	150mm aluminium
Extrusion:	75mm
Output:	360kg per hour
Motor:	0.75kW (1hp)
Weight:	123kg
Dimensions:	609(W) x 711(D) x 1980(H)mm
Power Requirements:	415V 0.75kW or 240V 0.75kW, Fused switch-disconnector
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £*		
<small>*See Pricing Information on page 2</small>		
AR-PUGMILL4	Vertical Pugmill	2,950.00

Wall Extruder



This robust and compact wall-mounted extruder has been designed to give a lifetime of reliable service and requires very little maintenance. An extruder is an indispensable tool to produce small solid sections such as cup handles or coils for pot making. Optional additional dies add to the versatility of this machine and enable hollow-section parts to be extruded.

The extruder's main aluminium body houses a series of hooks to allow the handle to be mounted where it will apply maximum leverage to the plunger. The wall extruder is supplied complete with a blank die plate and all the fixtures needed to mount it to a suitable wall. The handle can be easily removed for safe storage when not in use.

Specification	
Body:	75mm aluminium
Extrusion:	65mm (max)
Weight:	5.75kg
Dimensions:	140(W) x 155-720(D) x 530(H)mm
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £*		
<small>*See Pricing Information on page 2</small>		
AR-EXTRUDE1	Wall Mounted Clay Extruder with Set of Dies	225.00
AR-EXTRUDE1B	Optional Set of 3 Hollow Dies (round, hexagonal and square) for AR-EXTRUDE1	84.00

Clay Slab Roller



This roller has been designed to provide an extremely efficient and reliable method of producing slabs of clay for hand-building or tile production. The large single roller is made from rust-proof material for long life and to avoid clay contamination. The slab roller has fully collapsible legs for easy transportation and comes complete with a set of high quality rolling cloths. Additional cloths can

be purchased. Alternative hand-wheel designs are available to provide extra leverage or a more compact work area.

Slab Size:	1020(D) x 470(W)mm
Weight:	70kg
Dimensions:	820(W) x 1220(D) x 1090(H)mm
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £* <small>*See Pricing Information on page 2</small>		
AR-SLABROLL3	Clay Slab Roller	1,020.00

Clay Wedging Bench



A professional wedging bench which incorporates a high quality wooden frame and has a compressed concrete top fitted which is ideal for wedging clay.

Weight:	90kg
Dimensions:	1260(W) x 660(D) x 760(H)mm
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Return and Collect

Prices £* <small>*See Pricing Information on page 2</small>		
AR-WEDGE1	Wedging Bench	615.00

Modelling Stand



Sturdily constructed in clear-varnished beechwood, this modelling stand features high stability and a superb finish. The working height is adjustable with nine set positions from 890mm to 1360mm. The sturdy table is generously proportioned for stability and to securely accommodate a wide variety of projects.

Table Top:	400(W) x 400(D) x 21(H)mm
Weight:	18kg
Dimensions:	560(W) x 560(D) x 890-1365(H)mm
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £* <small>*See Pricing Information on page 2</small>		
AR-STAND1	Modelling Stand	139.00

Fibre Glass Clay Storage Bin



This fibre glass clay bin holds up to 250kg of clay.

Weight:	58kg
Dimensions:	800(W) x 530(D) x 790(H)mm
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

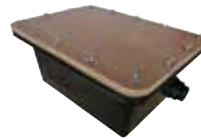
Prices £* <small>*See Pricing Information on page 2</small>		
AR-CLAYBINS5	Fibre Glass Clay Storage Bin	390.00

Decorator's Turn Table

This high quality turntable is available in either aluminium or steel, and in a range of sizes. The self-lubricating bronze bush and quality bearings give the turntable a professional and smooth action which is ideal for the classroom.

Prices £* <small>*See Pricing Information on page 2</small>		
AR-TURN1	Aluminium 8" dia x 3" high	69.00
AR-TURN3	Aluminium 10" dia x 4" high	194.00
AR-TURN5	Aluminium 12" dia x 6" high	225.00
AR-TURN6	Steel 10" dia x 4" high	178.00
AR-TURN7	Steel 12" dia x 4" high	194.00

Clay Trap



This simple and highly effective unit is essential in any classroom where clay-contaminated water will be washed down the sink. The unit fits under the sink and is plumbed into the waste system to trap clay residues before they cause problems. The unit has a 20 litre capacity and will not affect drainage of normal sink waste. It has a sealed lid secured by wing nuts which makes checking and emptying of deposited clay waste a quick and convenient process.

Water Inlet and Outer Connection:	Standard 38mm BSP
Clay slurry outlet:	78mm sealed cap
Weight:	5kg
Dimensions:	552(W) x 400(D) x 270(H)mm
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £* <small>*See Pricing Information on page 2</small>		
AR-CLAYTRAP2	Clay Trap, 20 litre capacity	490.00

Standing Kick Wheel



A very functional, ruggedly constructed standing kick wheel. The momentum of the wheel is obtained by a heavy flywheel which runs on sealed ball bearings to provide a smooth quiet operation with minimum of maintenance. Standard fittings include a 225mm aluminium wheelhead, splash tray and waste pipe.

Working Speed:	Up to 130rpm
Weight:	101kg
Dimensions:	620(W) x 675(D) x 950(H)mm
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Return and Collect

Prices £* <small>*See Pricing Information on page 2</small>		
AR-POTWHEEL12	Standing Kick Potters Wheel	570.00

Pottery Equipment

Potter's Wheels

Potter's Wheel Bailey



Shown here with two seats

The Bailey Wheel offers unparalleled versatility and performance in a compact and user-friendly design. It has been designed to complement a European style of throwing with the wheel head set at a greater height than most wheels of this style, allowing a more comfortable

throwing position. The Bailey wheel is powered by a super smooth, super quiet 0.5hp motor controlled by a computer-enhanced VF drive. This unique design delivers a peak equivalent of 1hp under heavy loads to give constant, smooth power throughout the speed range. The electronic speed control further promotes extremely quiet operation. The wheel has a large one-piece plastic bowl that has plenty of room for water containers and tools.

The Bailey Wheel has been designed to enable face to face teaching by adding an additional seat for the tutor. The foot control can be operated by either student or tutor and thus allows full control to be handed over to the student as their confidence grows.

Specification	
Wheel Head Diameter:	305mm
Wheel Speed:	0-280 rpm
Clay Capacity:	25kg
Motor:	0.37kW (0.5hp)
Weight:	30kg
Dimensions:	470(W) x 630(D) x 680(H)mm
Power Requirements:	240V 5A, 13A Socket
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £*		
<small>*See Pricing Information on page 2</small>		
AR-POTWHEEL2	Potter's Wheel Bailey with Seat	1,125.00
AR-POTWHEEL5	Potters's Wheel Bailey Tutorial with two Seats	1,255.00

Cowley Double Drive Potters Wheel



The Cowley Double Drive Wheel follows a classic design much loved by professional and amateur throwers alike. Drive is by the well-proven belt and cone system which offers great reliability and low maintenance. The Cowley Wheel is ideal for larger pots, but simple to operate for beginners. The wheel includes a forward and reverse switch, 0.5hp motor and an aluminium wheelhead.

Specification	
Wheel Head Diameter:	280mm
Wheel Speed:	0-280 rpm
Clay Capacity:	25kg
Motor:	0.37kW (0.5hp)
Weight:	37kg
Dimensions:	510(W) x 990(D) x 560(H)mm
Power Requirements:	230V 10A, 13A Socket
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £*		
<small>*See Pricing Information on page 2</small>		
AR-POTWHEEL4	Cowley Double Drive Potters Wheel	965.00

Potter's Wheel Staffordshire



The Staffordshire Wheel is ideal for educational use and is constructed using a polished wooden cabinet, complete with an integral shelf and a two-position adjustable upholstered seat. The wheel incorporates a large moulded plastic bowl. Drive to the wheel is by an extremely smooth

mechanism which offers low noise and vibration characteristics. Torque response is consistent throughout the speed range, thus enabling large amounts of clay to be centred and thrown. The Staffordshire Wheel features a fully reversible wheelhead for the left-handed thrower.

Specification	
Wheel Head Diameter:	305mm
Wheel Speed:	0-280 rpm
Clay Capacity:	25kg
Motor:	0.37kW (0.5hp)
Weight:	70kg
Dimensions:	760(W) x 1170(D) x 920(H)mm
Power Requirements:	240V 3A, 13A Socket
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £*		
<small>*See Pricing Information on page 2</small>		
AR-POTWHEEL1	Potter's Wheel Staffordshire	1,830.00

Special Needs Potters Wheel



This Special Needs Wheel has been designed with maximum flexibility in mind, but with no compromise to quality or the throwing capabilities of any standard wheel. The splash tray and wheel head are standard size, but the whole section can be moved up and down by crank handle to suit any height you require. With the wide splayed legs you can locate a wheel chair

or normal chair to a comfortable position for throwing. The screw-down feet stabilise the wheel when in use, and unscrew to rest the wheel on its integral castors. In this mode, the wheel becomes easy to roll away for storage or moving to a different position.

Specification	
Wheel Head Diameter:	305mm
Wheel Speed:	0-280 rpm
Clay Capacity:	20kg
Motor:	0.37kW (0.5hp)
Weight:	145kg
Dimensions:	1230(W) x 830(D) x 650-900(H)mm
Power Requirements:	240V 3A, 13A Socket
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £*		
<small>*See Pricing Information on page 2</small>		
AR-POTWHEEL3	Special Needs Potter's Wheel	2,800.00

Mobile Ware Stillage Trolley



Shown here with eight ware boards

This Mobile Stillage Trolley is designed to securely support wareboards for storing and moving delicate pottery items between stages of production. Ware boards are a flexible way to minimise handling of fragile ceramics, and ideal for storing or displaying students work. The trolley castors make it very easy to move around when it is full. The trolley is available in two sizes: AR-WARETRK1 is able to take up to 10 ware boards and AR-WARETRK2 is able to take up to eight. (N.B. Ware boards must be purchased separately.)

Specification	910mm	1210mm
Max No. Ware boards:	10	8
Weight (without boards):	20 kg	25kg
Dimensions:	910(W) x 545(D) x 1450(H)mm	1210(W) x 545(D) x 1450(H)mm
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect	

Prices £*		
<small>*See Pricing Information on page 2</small>		
AR-WARETRK2	Mobile Ware Stillage Trolley (910 x 545 x 1450mm)	185.00
AR-WAREBRD2	Ware Board (915 x 229mm) for AR-WARETRK2	25.00
AR-WARETRK1	Mobile Ware Stillage Trolley (1210 x 545 x 1450mm)	560.00
AR-WAREBRD1	Ware Board (1500 x 225 x 20mm) for AR-WARETRK1	28.00

Clay Damp Cupboard



Damp cabinets are available in varying sizes and are specifically designed for the safe storage of green ware. The basic construction consists of zinc coated sheet steel which is powder coated externally. Each damp cabinet is fitted with neoprene door seals with lockable door handle. Four removable shelves which can be positioned at variable heights are supplied as standard.

Prices £*		
<small>*See Pricing Information on page 2</small>		
AR-CLAYCUPBOARD1A	915(W) x 635(D) x 1270(H)mm	599.00
AR-CLAYCUPBOARD1	1220(W) x 635(D) x 1270(H)mm	810.00
AR-CLAYCUPBOARD1C	915(W) x 635(D) x 1830(H)mm	899.00
AR-CLAYCUPBOARD1B	1220(W) x 635(D) x 1830(H)mm	940.00

Lervad Pottery Cabinet



This roller shutter cabinet is strongly constructed on a Baltic pine veneered carcass with a Koto veneer interior. The cabinet is fitted with twelve Portable Drying Grates. For additional safety the beech veneered roller shutter is designed to open downwards.

Specification	
Weight:	92kg
Dimensions:	1200(W) x 400(D) x 1800(H)mm
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Prices £*		
<small>*See Pricing Information on page 2</small>		
SF-CB40	Lervad Roller Shutter Cupboard	1,250.00

Lervad Pottery Cabinet



This roller shutter cabinet is strongly constructed on a Baltic pine veneered carcass with a Koto veneer interior. The cabinet is supplied with 6 Portable Drying Grates, 5 Shelves and 2 x 6 plastic containers. For additional safety the beech veneered roller shutter is designed to open downwards.

Specification	
Weight:	92kg
Dimensions:	1200(W) x 400(D) x 1800(H)mm
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Prices £*		
<small>*See Pricing Information on page 2</small>		
SF-CB41	Lervad Roller Shutter Cupboard	1,140.00

Pottery Equipment

Kilns

Fireworker Kilns



Fireworker kilns are supplied complete with a controller and thermo-couple, and benefit from an additional protection relay for extra security. The controller connects to the kiln via a Harting socket which offers flexibility for installation. The kilns feature sturdy brick construction with brick to brick door seals within a powder-coated steel chassis. An adjustable-clasp door lock provides security and efficient sealing during firing. The kilns use high grade Kanthal A1 spiral wound elements for long life and energy efficiency. Elements are located in traditional grooves on both the side walls and the floor of the kiln. This allows uniform heat distribution throughout the chamber. In addition the elements are graded from top to bottom, further aiding even temperature distribution.

Fireworker kilns can be bench-mounted provided that the bench has been fireproofed. Alternatively, a sturdy and convenient stand has been developed especially for the fireworker kilns (as shown above). The stand has a built in shelf and the dimensions are 660(W) x 670(D) x 720(H)mm.

Specifications	P5910	P5911
Firing Capacity:	50 litres (1.77cu/ft)	68 litres (2.40cu/ft)
Max Temp:	1300°C	
Power:	4.5kW	5.5kW
Weight:	85kg	97kg
Chamber Dimensions:	400(W) x 380(D) x 350(H) mm	400(W) x 380(D) x 460(H) mm
External Dimensions:	640(W) x 680(D) x 700(H) mm	640(W) x 680(D) x 820(H) mm
Power Requirements:	240V 20A Fused switch-disconnector	240V 30A Fused switch-disconnector
Warranty:	UK Mainland: 3 Years On-Site Elsewhere: 3 Years Return and Collect	

Prices £*		*See Pricing Information on page 2
AR-KILN26	P5910 Fireworker 50 litre (inc controller & furniture set)	1,390.00
AR-KILN27	P5911 Fireworker 68 litre (inc controller & furniture set)	1,530.00
AR-KILN27B	Stand suitable for kilns AR-KILN26/27	157.00

Heatworker Kilns



Heatworker kilns have similar features and equipment to the smaller Fireworker models and will probably meet the capacity requirements of most schools and colleges with a busy pottery section.

Heatworker kilns achieve excellent energy efficiency by using durable low thermal-mass insulation brick and high grade backup insulation board to form the chamber. Durability and protection is ensured with a robust pressed-steel powder-coated frame and stainless steel surrounds. Heavy duty spiral wound elements are used to heat the kiln. These elements are tube-mounted for optimum efficiency on both the side walls and floor of the kiln, to allow uniform heat distribution throughout the chamber. In addition, elements are graded from top to bottom to further aid even temperature distribution within the kiln.

Specifications	P5941	P5942	P5943
Firing Capacity:	86 litres (3.04cu/ft)	128 litres (4.52cu/ft)	171 litres (6.04cu/ft)
Max Temp:	1300°C		
Power:	6kW	7.5kW	9kW
Weight:	240kg	270kg	315kg
Chamber Dimensions:	410(W) x 380(D) x 560(H)mm	410(W) x 450(D) x 680(H)mm	410(W) x 550(D) x 730(H)mm
External Dimensions:	760(W) x 860(D) x 1450(H)mm	760(W) x 1000(D) x 1560(H)mm	760(W) x 1000(D) x 1650(H)mm
Power Requirements:	415V 15A or 240V 30A, Fs-d	415V 15A or 240V 40A Fused switch-disconnector	
Warranty:	UK Mainland: 3 Years On-Site Elsewhere: 3 Years Return and Collect		

Prices £*		*See Pricing Information on page 2
AR-KILN14	P5941 Heatworker 86 litre (inc controller & furniture set)	2,675.00
AR-KILN15	P5942 Heatworker 128 litre (inc controller & furniture set)	2,990.00
AR-KILN16	P5943 Heatworker 171 litre (inc controller & furniture set)	3,285.00
AR-KILN14C	Zintec Hood & Mounting Brackets for AR-KILN14	325.00
AR-KILN15C	Zintec Hood & Mounting Brackets for AR-KILN15	340.00
AR-KILN16C	Zintec Hood & Mounting Brackets for AR-KILN16	355.00

Lightmaster Kilns



Lightmaster kilns share the same features and build-quality of the Heatworker and Firemaster models and will be ideal for schools and colleges requiring a traditional front loading kiln with significantly enhanced capacity.

The kilns are constructed of durable low thermal mass insulation brick with two high grade backup insulation boards. Durability and protection is ensured with a robust pressed-steel powder-coated frame and stainless steel surrounds. Heavy duty Kanthal A1 spiral wound elements are used to heat the kiln. These elements are mounted in grooves on both the side walls and floor of the kiln, to allow uniform heat distribution throughout the chamber. In addition, elements are graded from top to bottom to further aid even temperature distribution within the kiln. The kilns have adjustable clasp door locks fitted and stainless steel surrounds. They also have brick to brick door seals and type 'R' thermocouples as standard fittings. The kilns are energy efficient and have a roof and door vent for use during firing and to aid cooling.

Specifications	P5120	P5121
Firing Capacity:	210 litres (7.42cu/ft)	250 litres (8.83cu/ft)
Max Temp:	1300°C	
Power:	11kW	13kW
Weight:	310kg	330kg
Chamber Dimensions:	450(W) x 630(D) x 730(H) mm	450(W) x 630(D) x 860(H) mm
External Dimensions:	760(W) x 1030(D) x 1580(H)mm	760(W) x 1030(D) x 1580(H)mm
Power Requirements:	415V 20A or 240V 50A Fused switch-disconnector	415V 20A or 240V 63A Fused switch-disconnector
Warranty:	UK Mainland: 3 Years On-Site Elsewhere: 3 Years Return and Collect	

Prices £*		*See Pricing Information on page 2
AR-KILN17	P5120 Lightmaster 210 litre (inc controller & furniture set)	3,415.00
AR-KILN18	P5121 Lightmaster 250 litre (inc controller & furniture set)	3,595.00
AR-KILN17C	Zintec Hood & Mounting Brackets for AR-KILN17/18	380.00

Ceramaster Kilns



The Ceramaster is a semi-industrial kiln and ideal for schools and colleges needing a large capacity kiln for a busy full-time ceramics studio.

The kilns are constructed of a durable low thermal mass insulation brick with a high grade backup insulation board. The roof is of flat arch construction, again with two layers of backup insulation. This is all enclosed within a robust high quality pressed steel powder coated frame. Heavy duty spiral wound elements are tube mounted for optimum efficiency and sited on both side walls and floor of the kiln for even heat distribution. All kilns in the Ceramaster range are now fitted with a manual damper as standard.

Specifications	P5229	P5231	P5233
Firing Capacity:	235 litres (8.3cu/ft)	325 litres (11.5cu/ft)	505 litres (17.8cu/ft)
Max Temp:	1300°C		
Power:	13kW	18kW	26.5kW
Weight:	370kg	450kg	540kg
Chamber Dimensions:	610(W) x 610(D) x 630(H)mm	610(W) x 610(D) x 860(H)mm	610(W) x 840(D) x 980(H)mm
External Dimensions:	950(W) x 1050(D) x 1570(H)mm	950(W) x 1050(D) x 1600(H)mm	950(W) x 1280(D) x 1800(H)mm
Power Requirements:	415V 20A or 240V 63A, Fused switch-disconnector	415V 30A Fused switch-disconnector	415V 45A Fused switch-disconnector
Warranty:	UK Mainland: 3 Years On-Site Elsewhere: 3 Years Return and Collect		

Prices £*		*See Pricing Information on page 2
AR-KILN33	P5229 CeraMaster 235 litre (inc controller & furniture set)	4,310.00
AR-KILN35	P5231 CeraMaster 325 litre (inc controller & furniture set)	5,745.00
AR-KILN37	P5233 CeraMaster 505 litre (inc controller & furniture set)	7,690.00
AR-KILN33C	Kiln Canopy for AR-KILN33	POA
AR-KILN35C	Kiln Canopy for AR-KILN35	295.00
AR-KILN37C	Kiln Canopy for AR-KILN37	POA

Pottery Equipment

Kilns / Spraybooth

Top Loading Kilns



Topworker kilns are built to achieve professional standards of firing control and efficiency, but are of compact design to make them ideal for schools and colleges. They are constructed of a low thermal mass 76mm thick insulation brick with a 25mm backup insulation, which is then enclosed within a stainless steel outer jacket. The kilns are fitted with castors (two braked) for easy movement, and two or three bung holes to assist with venting of the kiln and cooling. All the kilns are fitted with a Harting socket for flexible controller connection. For extra security, lids are fitted with a quick-release lock and have padlock provision.

Specifications	P5975	P5959
Firing Capacity:	79 litres (2.79cu/ft)	187 litres (6.61cu/ft)
Max Temp:	1300°C	
Power:	6.5kW	12kW
Weight:	88kg	140kg
Chamber Dims:	468dia. x 457(H)mm	646dia. x 571(H)mm
External Dimensions:	660dia. x 877(H)mm	838dia. x 991(H)mm
Power Requirements:	415V 10A or 240V 32A Fused switch-disconnector	415V 20A or 240V 63A Fused switch-disconnector
Warranty:	UK Mainland: 3 Years On-Site Elsewhere: 3 Years Return and Collect	

Prices £*		*See Pricing Information on page 2
AR-KILN19	P5975 Topworker 79 litre (inc controller & furniture set)	2,050.00
AR-KILN22	P5959 Topworker 176 litre (inc controller & furniture set)	2,710.00
AR-KILN19C	Extraction hood for AR-KILN19	POA
AR-KILN22C	Extraction hood for AR-KILN22	POA

Test Kiln



This is a small kiln designed for test firing clays and glazes without having to fire a large kiln. The kiln comes with a controller and full kiln furniture set. It can be bench mounted provided the work surface is fireproof.

Specification	
Firing Capacity Ltrs (cu/ft):	9 litres (0.32 cu/ft)
Max Temp:	1300°C
Power:	2.5kW
Weight:	50kg
Chamber Dimensions:	180(W) x 230(D) x 230(H)mm
External Dimensions:	350(W) x 490(D) x 450(H)mm
Power Requirements:	240V 13A, 13A Socket
Warranty:	UK Mainland: 3 Years On-Site Elsewhere: 3 Years Return and Collect

Prices £*		*See Pricing Information on page 2
AR-KILN32	P5900 Test Kiln 9 Litres (inc controller & furniture set)	1,140.00
AR-KILN27B	Stand for AR-KILN32	157.00
AR-KILN32C	Kiln Canopy for AR-KILN32	POA

Wetback Spraybooth with Stand

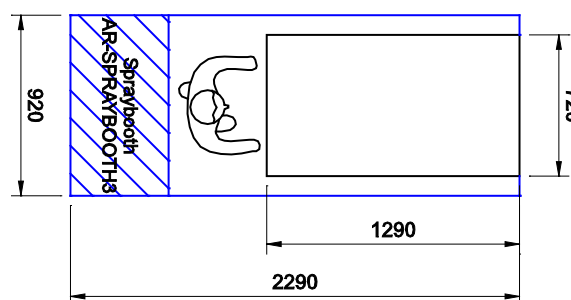


Designed to enable glazes to be applied by spray in safety, but also offers the chance to re-cycle 'overspray' material. The unit uses a continuous water curtain of recycling water and a powerful fan to trap overspray. Most of the solid particles are trapped by the water. The particles that escape then get trapped by a series of two filters, a washable stainless steel filter, followed by a washable filter bag. The material trapped by the water can be reclaimed by allowing it first to settle, and then siphoning off the water. It is not possible to separate different colours or types of glazes from the sediment but, with careful management, this ingenious spray booth offers not only a safe working environment but an economical means to apply valuable glaze material by spray gun.

Specification	
Fan:	2000CFM
Air extraction:	250 cu. ft/min
Working Depth:	350mm
Weight:	118kg approx
Hood Internal Dimensions:	625(W) x 420(D) x 638(H)mm
Dimensions External:	720(W) x 1290(D) x 1655(H)mm
Power Requirements:	240V 6.8A, 13A Socket
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

CAD Drawing (with Safe Working Area)


Available in DXF / DWG & 2D Design formats. See page 10.



Prices £*		*See Pricing Information on page 2
AR-SPRAYBOOTH3	Wetback Spraybooth with Stand Must be plumbed in.	3,750.00

Schepach Chisa 7 Morticer



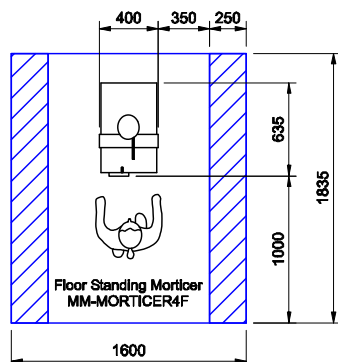
 Emergency Foot Stop supplied as standard

This morticer is likely to meet the needs of many schools and colleges. The main headstock, table and vertical machine column are all made in solid cast iron resulting in a stable, vibration free mortising machine. Adjustable guides ensure that any possible movement from years of constant use can be taken up so that the machine always remains as accurate as the day it is purchased. The morticer has big handwheels for easy table adjustment and the base has a fully lockable door.

Specification	
Max. Chisel Size:	25mm
Table Movement:	270(W) x 150(D)mm
Bench/Floor Mounted:	Floor
Motor:	0.75kW (1hp)
Weight:	91kg
Dimensions:	635(W) x 400(D) x 1010(H) mm
Power Requirements:	240V 0.75kW, Fused switch-disconnector
Warranty:	UK Mainland: 2 Years Return to Base Elsewhere: 2 Years Return and Collect

CAD Drawing (with Safe Working Area)


Available on request in DXF, DWG & DTD (2D Design) formats. See page 10.



Prices £*		*See Pricing Information on page 2
MM-MORTICER4F	Mortice Machine Schepach Chisa 7 c/w base + Emergency Foot Stop	625.00

Sedgwick 571 Morticer



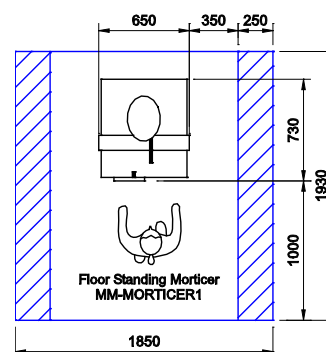
 Emergency Foot Stop supplied as standard

Designed for a lifetime's use in a professional workshop, this machine is regarded by many as the industry standard for hollow chisel morticers. The table, column and head are all made from high quality cast iron and mounted on a substantial steel base. A single handwheel controls all the table movements - left to right and front to back. Operation is simple and numerous stops are provided for repeat work. This makes the 571 an ideal machine for a training environment.

Specification	
Max. Chisel Size:	25mm (softwood); 19mm (hardwood)
Table Movement:	400(W) x 90(D)mm
Bench/Floor Mounted:	Floor
Motor Power:	1.1kW (1.5hp)
Weight:	169kg
Dimensions:	650(W) x 730(D) x 1520(H)mm
Power Requirements:	415V 1.1kW or 240V 1.1kW Fused switch-disconnector
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

CAD Drawing (with Safe Working Area)

Available on request in DXF, DWG & DTD (2D Design) formats. See page 10.



Prices £*		*See Pricing Information on page 2
MM-MORTICER1FT	Sedgwick 571 Mortice Machine (3 Phase) + Emergency Foot Stop	1,595.00
MM-MORTICER1FS	Sedgwick 571 Mortice Machine (1 Phase) + Emergency Foot Stop	1,595.00

Bandsaws

TechSoft Minimax Bandsaws

High Quality Bandsaws, Ideal for Educational Use



The Essential Machine

If there's one power saw a busy workshop can't live without then it's a good bandsaw. A good machine will be solidly built, have a positive feel when setting up, and hold its settings to preserve accuracy.

TechSoft and SCM – Global Quality, Local Support

There is no shortage of makes and models to choose from these days, but not all machines are the same and even 'trusted brands' will not necessarily possess the quality that their badge suggests. To give schools and colleges the quality of machine they need at an affordable price, TechSoft are delighted to have entered into a partnership with the Italian company SCM for bandsaws and, indeed, our full range of woodworking machinery. SCM have been established for over 50 years and are now global leaders in the design, manufacture and supply of production machinery for all sectors of the furniture and construction industry. Products range from huge CNC-controlled machines for mass production, to the Minimax range of traditional machines for workshops, schools and colleges. All machines are built to the highest standards at SCM's state-of-the-art plant in Rimini, and all undergo rigorous quality procedures to ensure years of reliable service. In the UK, SCM's large and well established facility in Nottingham provides the assurance of speedy, and dedicated, service and support should it be needed.

Why Do I Need a Bandsaw?

Nothing beats a bandsaw for versatility. With the right blade you can cut any timber, most plastics, and even aluminium. Cuts can be straight, curved or angled in any plane. Bandsaws will tackle deeper cuts than most saws so it is quite possible to 'deep-rip' wide boards into matching thinner boards, or even mill your own planks from heavier stock. Because blades are comparatively thin, the kerf (or cut-width) is thin so less of your precious material ends up as sawdust, and there is less waste for an extraction system to deal with. SCM bandsaws are built to high standards with secure blade-guide systems, rigid construction and solid, accurately machined castings. Using the fences and guides provided, they will achieve results every bit as accurate as a circular saw although (as with any bandsaw) the sawn surface will need attention to remove the fine saw marks.

Choosing the right Bandsaw

By choosing a TechSoft Minimax bandsaw you can have confidence in knowing that your machine will perform superbly in all the applications outlined. Capacity is important and both our models are likely to have more than enough cut-depth. Throat depth is more of an issue and this will dictate cross-cut capacity which in turn largely governs the physical size of the machine. If a circular saw is available then the S45NE bandsaw will probably be all that is needed to deal with trimming and re-sawing in the classroom. The heavier-duty S400PE machine will be a better bet if basic timber preparation (including milling boards) is anticipated.

Generous blade guides with fine adjustment and positive locking.



Tilting cast-iron work table with heavy-duty rip fence



Extraction port with internal baffle to maximise efficiency.



Heavy cast-iron bandwheels running on high quality, sealed for life, bearings.

TechSoft Minimax S45NE

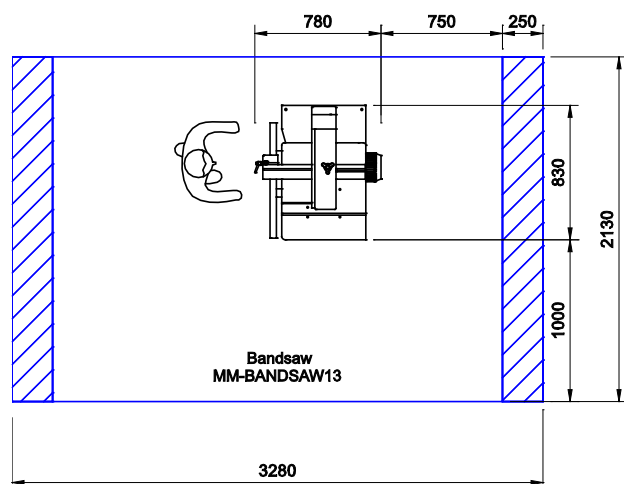


The ideal machine for re-sawing basic stock and all general-purpose use in the classroom or Preparation Room. The S45NE is widely respected in professional joinery and cabinet-making workshops, and features a level of sturdiness and build-quality that sets it apart from other machines in its class. Cast iron bandwheels and precision upper and lower blade guides eliminate 'wander' to ensure accurate cuts both against the fence and through the material. An extruded aluminium rip fence, mitre fence, key and foot-stop switches and automatic braking are supplied as standard with this machine.

Specification	
Table Size:	600 x 520mm
Table Tilt:	0° to 20°
Throat Width:	440mm
Clearance Height:	300mm
Blade Width:	6 - 25mm
Motor:	1 Phase: 1.8kW (2.5hp) 3 Phase: 2.2kW (3hp)
Weight:	200kg
Dimensions:	830(W) x 780(D) x 1860(H)mm
Power Requirements:	415V 2.2kW or 240V 1.9kW Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

CAD Drawing (with Safe Working Area)

Available on request in DXF, DWG & DTD (2D Design) formats. See page 10.



TechSoft Minimax S400PE



The S400PE shares broadly similar specifications and identical safety features to the S45NE but features heavier-duty construction with a grooved table, mitre fence and a cast-iron rip fence. The S400PE will be the first choice for a preparation room where milling heavier stock is a routine requirement. It remains, however, an accurate general-purpose machine for re-sawing and trimming. The S400PE is designed for professional use and is the smallest in a series of larger capacity, industrial-rated bandsaws. If greater capacity is needed then TechSoft will be happy to discuss your requirements.

Specification	
Table Size:	620 x 450mm
Table Tilt:	0° to 20°
Throat Width:	380mm
Clearance Height:	400mm
Blade Width:	10 - 30mm
Motor:	1 Phase: 1.5kW (2hp) 3 Phase: 1.5kW (2hp)
Weight:	200kg
Dimensions:	830(W) x 610(D) x 1915(H)mm
Power Requirements:	415V 1.5kW or 240V 1.5kW Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

MM-BANDSAW13KFT	TechSoft S45NE Bandsaw 3 phase <i>(includes Key Switch + Emergency Foot Stop)</i>	1,990.00
MM-BANDSAW13KFS	TechSoft S45NE Bandsaw 1 phase <i>(includes Key Switch + Emergency Foot Stop)</i>	2,055.00
MM-BANDSAW18KFT	TechSoft S400PE Bandsaw 3 phase <i>(includes Key Switch + Emergency Foot Stop)</i>	2,860.00
MM-BANDSAW18KFS	TechSoft S400PE Bandsaw 1 phase <i>(includes Key Switch + Emergency Foot Stop)</i>	2,950.00
MM-EXTRACTION70P1S	Minimax Dust Extractor with Attachment Fittings for MM-BANDSAW13/18 (1 phase). <i>See page 181.</i>	745.00
MM-SWITCH7	Integrated auto-switched socket for extractor MM-EXTRACTION70P1S <i>(fitted at time of purchase)</i>	345.00
MM-EXTRACTION70P1T	Minimax Dust Extractor with Attachment Fittings for MM-BANDSAW13/18 (3 phase). <i>See page 181.</i>	730.00
MM-SWITCH8	Integrated auto-switched socket for extractor MM-EXTRACTION70P1T <i>(fitted at time of purchase)</i>	370.00
CUSTOM-CVAC	Centralised Vac Extraction System. <i>See page 180.</i>	

Circular Saws

TechSoft Minimax Circular Saws

Ultra Capable Circular Saws with True Sliding Tables



The Workshop Workhorse

The centre-piece of any timber preparation area is usually a circular sawbench – and for good reason. A good circular saw will provide a solid base to support the material and will be precision-engineered to provide repeat accuracy and a clean, efficient cutting action.

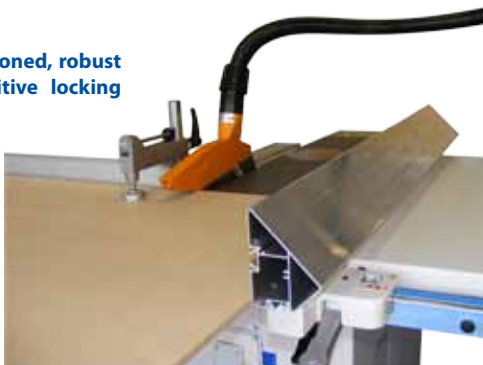
TechSoft and SCM – Global Quality, Local Support

There is no shortage of makes and models to choose from these days, but not all machines are the same and even 'trusted brands' will not necessarily possess the quality that their badge suggests. To give schools and colleges the quality of machine they need at an affordable price, TechSoft are delighted to have entered into a partnership with Italian company SCM for circular saws and, indeed, our full range of woodworking machinery. SCM have been established for over 50 years and are now global leaders in the design, manufacture and supply of production machinery for all sectors of the furniture and construction industry. Products range from huge CNC-controlled machines for mass production, to the Minimax range of traditional machines for workshops, schools and colleges. All machines are built to the highest standards at SCM's state-of-the-art plant in Rimini, and all undergo rigorous quality procedures to ensure years of reliable service. In the UK, SCM's large and well established facility in Nottingham provides the assurance of speedy and dedicated service and support should it be needed.

Why Do I Need a Circular Saw?

Timber is seldom supplied in exactly the right sections for any given job and buying it prepared to size is very expensive. Each of our machines will quickly and accurately rip larger hard or softwood sections down to precise dimensions and to virtually any length. They all feature a tilting arbor so bevelled cuts will be no problem. All are fitted with a quality blade so the sawn surface will often be clean enough for immediate use. A second key application for a circular saw is for cross-cutting stock to length, and for breaking-down and dimensioning panel products. With the right machine you will quickly be able to prepare batches of stock to length, width and thickness, and provide accurately-dimensioned panels with clean, square edges.

Generously proportioned, robust rip fence with positive locking and adjustment.



Choosing the Right Circular Saw

By choosing an SCM machine from TechSoft you can have confidence in knowing that your machine will be superbly engineered to give lasting repeat accuracy. These are powerful machines so feature robust construction to support the motor/arbor assembly and to withstand the considerable forces that long lengths of timber can apply. Circular saws are seldom used for deep-ripping, so probably all the machines we list will cut stock thick enough for most schools and colleges. Dimensioning panel products will be the key factor in determining which saw is right for you. Even the 'baby' SC1 machine will cut any width from an 8'x4' sheet, but (for cross-cutting) a full sheet sitting across the sawbench takes a lot of space and needs a lot of support. If this is a priority then look at the larger machines with larger sliding and main tables, but be aware of the machine 'footprint' once safe working areas are taken into account – they need a lot of space! All machines feature ergonomically-designed controls that have a positive action and (of course) meet all safety requirements for guarding, isolation and extraction capability.

Bearing-guided sliding table with built-in length stop and material clamp for accurate cross-cutting.



TechSoft Minimax SC1E Genius



This compact machine will meet most needs for accurate preparation of smaller stock and (with assistance to support the board) will cut any width from a standard 8' x 4' sheet, but will not be suitable for cross-cutting full sheets. If man-made boards can be broken-down first then the sliding table and main rip fence will allow batch preparation of panels up to 700mm length and/or width.

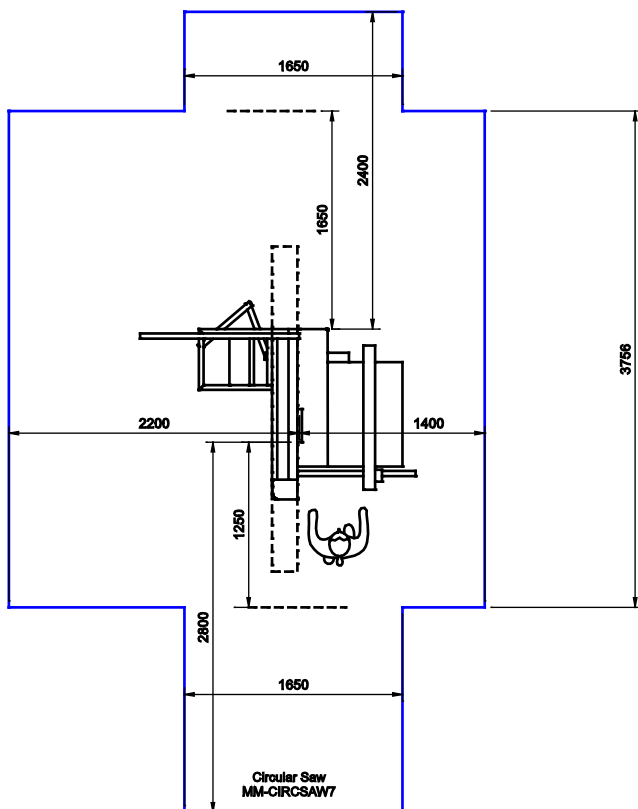
Specification	
Saw Blade Diameter:	250mm
Cutting depth at 90°:	80mm
Max. squaring stroke:	1200mm
Cutting width on rip fence:	700mm
Speed:	4000rpm
Motor:	1.5kW
Weight:	170kg
Dimensions:	2084(W) x 2460(D) x 1250(H)mm
Power Requirements:	415V 1.5kW or 240V 1.5kW Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

TechSoft Minimax SC2E Classic



This larger version of the SC1 machine features greater cutting capacity, heavier construction and a more powerful motor to cope with sustained 'production-style' work. The sliding table will comfortably cross-cut full size sheet materials to 900mm (upgradeable to 1270mm) widths, and this may well be sufficient for most schools or colleges.

Specification	
Saw Blade Diameter:	250mm
Cutting depth at 90°:	80mm
Max. squaring stroke:	1515mm
Cutting width on rip fence:	900mm Upgradeable to 1270mm
Speed:	4000rpm
Motor:	2.2kW (415V) or 1.8kW (240V)
Weight:	280kg
Dimensions:	2400(W) x 3400(D) x 1250(H)mm
Power Requirements:	415V 2.2kW or 240V 1.9kW Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect



Prices £*

*See Pricing Information on page 2

MM-CIRCSAW7KFT	TechSoft Minimax SC1E Circular Saw 3 phase (includes Key Switch + Emergency Foot Stop)	2,375.00
MM-CIRCSAW7KFS	TechSoft Minimax SC1E Circular Saw 1 phase (includes Key Switch + Emergency Foot Stop)	2,425.00
MM-CIRCSAW12KFT	TechSoft Minimax SC2E Classic Circular Saw 3 phase (includes Key Switch + Emergency Foot Stop)	3,699.00
MM-CIRCSAW12KFS	TechSoft Minimax SC2E Classic Circular Saw 1 phase (includes Key Switch + Emergency Foot Stop)	3,745.00
MM-CIRCSAW12U	Upgrade Package for MM-CIRCSAW12 (includes 1270mm cut width on high rigidity cam-locking rip fence)	135.00
MM-EXTRACTION70P2S	Minimax Dust Extractor with Attachment Fittings for MM-CIRCSAW7/12 (1 phase). See page 181.	805.00
MM-SWITCH7	Integrated auto-switched socket for extractor MM-EXTRACTION70P2S (fitted at time of purchase)	345.00
MM-EXTRACTION70P2T	Minimax Dust Extractor with Attachment Fittings for MM-CIRCSAW7/12 (3 phase). See page 181.	790.00
MM-SWITCH8	Integrated auto-switched socket for extractor MM-EXTRACTION70P2T (fitted at time of purchase)	370.00
CUSTOM-CVAC	Centralised Vacuum Extraction System. See page 180.	

Planer Thicknessers

TechSoft Minimax Planer Thicknessers

Solid and Reliable Planer Thicknessers, Designed for Ease of Use



The Ideal Companion Machine

A solidly built and reliable planer/thicknesser is an important compliment to a good circular saw or bandsaw. There is no better machine to achieve accurate datum faces on rough, bowed or warped boards, and nothing to beat the consistent accuracy and smooth surface-finish that they produce.

TechSoft and SCM – Global Quality, Local Support

There is no shortage of makes and models to choose from these days, but not all machines are the same and even 'trusted brands' will not necessarily possess the quality that their badge suggests. To give schools and colleges the quality of machine they need at an affordable price, TechSoft are delighted to have entered into a partnership with Italian company SCM for planer/thicknessers and, indeed, our full range of woodworking machinery. SCM have been established for over 50 years and are now global leaders in the design, manufacture and supply of production machinery for all sectors of the furniture and construction industry. Products range from huge CNC-controlled machines for mass production, to the Minimax range of traditional machines for workshops, schools and colleges. All machines are built to the highest standards at SCM's state-of-the-art plant in Rimini, and all undergo rigorous quality procedures to ensure years of reliable service. In the UK, SCM's large and well established facility in Nottingham provides the assurance of speedy and dedicated service and support should it be needed.

Why Do I Need a Planer Thicknesser?

Timber can only be sawn to the required dimensions if it is flat and has a true datum edge to run against the saw fence. Softwood usually needs little attention but hardwoods are a different matter. The cheapest and widest selection of hardwoods are always available as sawn boards and these need preparation by planing first, then sawing and then thicknessing to precise dimension. If the material is already flat and true then sawing, or maybe just thicknessing, is all that is needed to achieve a smooth, planed finish. Our two machines combine both planing and thicknessing into one compact, robust unit. For planing, the material is run across the large surface tables where the cutter block achieves smooth datum faces. To thickness the timber, boards are fed in below the tables where a power-feed takes up the material and feeds it through at steady speed under the cutter block. These are preparation room machines that offer the chance of premium grade material at economy prices in any 'bespoke' section.



Choosing the Right Planer-Thicknesser

By choosing an SCM machine from TechSoft you can have confidence in knowing that your machine will be superbly engineered to give lasting repeat accuracy. These powerful machines all feature accurately-machined surface tables and robust construction to support the cutter block and feed tables. For both machines we supply a three-knife Tera cutter block as standard. This advanced system allows blades to be changed in minutes with no specialist tools. Centrifugal force holds the blades in place and a simple locking bar automatically ensures perfect alignment, perfect balance and optimum cutting performance every time.



Choice of model will largely be determined by capacity, both machines have generous thicknessing capability which is likely to exceed most demands in schools and colleges. Width is more of an issue. The FS30 model will machine boards up to 300mm wide (probably sufficient for most schools and colleges) but the FS41 machine has the added advantage of longer surface tables as well as 410mm width capacity. These longer tables will be an advantage for all work even if machining larger sizes is only an occasional requirement.

All machines feature ergonomically-designed controls that have a positive action and (of course) meet all safety requirements for guarding, isolation and extraction capability.



Converting between planing and thicknessing is quick and easy with the pivoting table. The generous extraction hood simply swings up or down into the required position.

TechSoft Minimax FS30E Genius

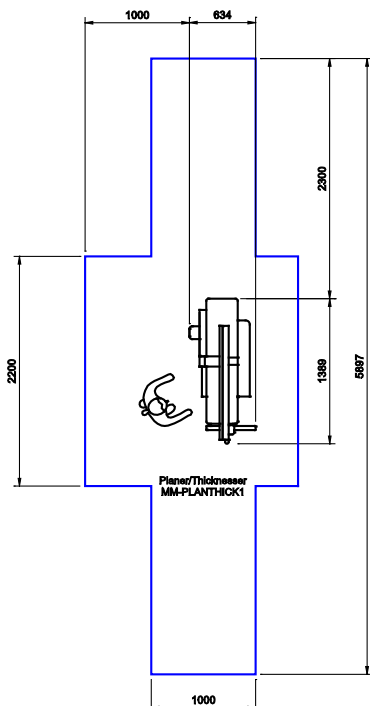


This compact model features a steel base and cast iron worktables for accurate, virtually vibration-free operation. The upper table opens to allow a chip extraction hood to be fitted and has been designed to allow the machine to be placed close to external walls. For most schools and colleges, the FS30E Genius will provide all the capacity they need with no compromise on quality.

Specification	
Max Surfacing Width:	300mm
Surfacing Table Length:	1200mm
Min / Max Thicknessing:	3 / 200mm
Cutter Block:	TERSA [®] with 3 knives
Feed Speed on Thicknesser	6m/min
Motor:	1.5kW (2hp)
Weight:	140kg
Dimensions:	634(W) x 1389(D) x 950(H)mm
Power Requirements:	415V 1.5kW or 240V 1.5kW Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

CAD Drawing (with Safe Working Area)

Available on request in DXF, DWG & DTD (2D Design) formats. See page 10.



TechSoft Minimax FS41E Classic



This large-capacity machine will be ideal for all day-to-day work in a busy workshop and is likely to meet every requirement for larger stock preparation. Build quality is heavy and robust to withstand longer sections to be worked in confidence. The FS41E provides professional capability at an unbeatable price.

Specification	
Max Surfacing Width:	410mm
Surfacing Table Length:	1800mm
Min / Max Thicknessing:	3 / 230mm
Cutter Block:	TERSA [®] with 3 knives
Feed Speed on Thicknesser	7m/min
Motor:	3kW (4hp) 415V or 1.8kW (2.5hp) 240V
Weight:	350kg
Dimensions:	1555(W) x 570(D) x 997(H)mm
Power Requirements:	415V 3kW or 240V 1.9kW Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

MM-PLANTHICK1K2FT	TechSoft Minimax FS30E Planer Thicknesser 3 phase (includes Key Switch + 2 Emergency Foot Stops)	2,295.00
MM-PLANTHICK1K2FS	TechSoft Minimax FS30E Planer Thicknesser 1 phase (includes Key Switch + 2 Emergency Foot Stops)	2,345.00
MM-PLANTHICK2K2FT	TechSoft Minimax FS41E Planer Thicknesser 3 phase (includes Key Switch + 2 Emergency Foot Stops)	3,840.00
MM-PLANTHICK2K2FS	TechSoft Minimax FS41E Planer Thicknesser 1 phase (includes Key Switch + 2 Emergency Foot Stops)	3,985.00
MM-EXTRACTION70P1S	Minimax Dust Extractor with Attachment Fittings for MM-PLANTHICK1/2 (1 phase). See page 181.	745.00
MM-SWITCH7	Integrated auto-switched socket for extractor MM-EXTRACTION70P1S (fitted at time of purchase)	345.00
MM-EXTRACTION70P1T	Minimax Dust Extractor with Attachment Fittings for MM-PLANTHICK1/2 (3 phase). See page 181.	730.00
MM-SWITCH8	Integrated auto-switched socket for extractor MM-EXTRACTION70P1T (fitted at time of purchase)	370.00
CUSTOM-CVAC	Centralised Vac Extraction System. See page 180.	

Combination Woodworking Machines

TechSoft Minimax Combination Machines

Space Saving Combination Machines with True Sliding Tables



One Machine – Sawing, Planing & Thicknessing

Our Minimax Combination machines can provide a cost and space saving way to fully equip a preparation area. Each machine comprises a circular saw bench and a planer-thicknesser arranged back-to-back in one integrated unit. The work table is shared by both functions so, despite their compact size, combination machines retain their full capacity for either sawing or planing. The saw and planer-thicknesser are each powered by separate motors so swapping between operations is very straightforward. Needless to say, only one function at a time can be used. Mechanical and electrical control systems are built into these machines to ensure that only the function being used is 'live' and remaining systems are in a safe state.

Combination Machines in Schools and Colleges

For less than the cost of two separate machines, schools can have the precise sawing and planing capability they need for all basic stock preparation. In terms of space saving, it is best to think of combination machines as offering alternatives rather than substitutes. Separate machines need a safe working area that allows for in-feed and out-feed at each end of the machine and enough space at the side for the operator. They also need sufficient space between them to make sure one machine is not hindered by the other. Combination machines have a smaller 'footprint' but need space on all four sides. This means they need central placement in a preparation area. Where this is possible, you have the added bonus of more space to position larger boards and the ability to cross-cut longer stock on the saw table. In this situation, a combination machine will always be a space saving and convenient option.

Full Machining Capability

Despite their compact size, our Minimax combination machines do not compromise on quality or performance. The main saw table features a rise and fall tilting arbor for angled cuts with convenient handwheel adjustment and locking. A welded steel main chassis and ribbed cast iron work tables ensure accuracy and vibration free operation. Deep, positive locking fences for cross cutting and ripping feature hold-down clamps and stops for repeat working. A precision engineered sliding table runs close to the blade for accurate ripping. The smaller C30E machine includes a squaring frame to allow repeat sawing of panel components to accurate dimensions including angles and bevel cuts. The planer features a three-knife Tersa © cutter block for clean surfaces and easy blade changing. The efficient feed system allows rapid stock removal up to the maximum table width. Planing datum faces is easy to achieve - the robust saw fence provides the necessary datum and an easily adjusted bridge guard will ensure safe operation. For convenience, the main surfacing table opens toward the operator for thicknessing.

When sold commercially these machines also have a spindle moulder and optional extra slot morticer. However, current regulations (BS4163:2014, paragraph 13.3, page 64) mean that school and colleges are unable to exploit these.



TechSoft and SCM – Global Quality, Local Support

To give schools and colleges the quality of machine they need at an affordable price, TechSoft are delighted to have entered into a partnership with Italian company SCM for our full range of woodworking machinery. SCM have been established for over 50 years and are now global leaders in the design, manufacture and supply of production machinery for all sectors of the furniture and construction industry. Products range from huge CNC controlled machines for mass production, to the Minimax range of traditional machines for workshops, schools and colleges. All machines are built to the highest standards at SCM's state-of-the-art plant in Rimini, and all undergo rigorous quality procedures to ensure years of reliable service. In the UK, SCM's large and well established facility in Nottingham provides the assurance of speedy and dedicated service and support should it be needed.

Generously proportioned, robust rip fence with positive locking and adjustment.



Bearing-guided sliding table with built-in length stop and material clamp for accurate cross-cutting.

Surface Planing



Combination Woodworking Machines

TechSoft Minimax Combination Machines

TechSoft Minimax C30E Genius



The C30E is likely to provide sufficient capacity and cutting speed for most schools. Although too small to break down full 1200 x 2400mm sheets into quarters, the included squaring frame will make it easy to prepare accurate batches of large panel components. Cutting depth and width against the rip fence will almost certainly exceed the capacity needed for most student projects. The C30E shares the same planing width as the CU300E model.

Specification	
Saw:	
Saw Blade Diameter:	250mm
Cutting depth at 90°:	80mm
Max. squaring stroke:	1200mm
Cutting width on rip fence:	540mm
Speed:	4000rpm
Planer Thicknesser:	
Max Surfacing Width:	300mm
Surfacing Table Length:	1200mm
Min/Max Thicknessing:	3/200mm
Cutter Block:	TERSA with 3 knives
Feed Speed on Thicknesser:	6m/min
Overall:	
Motor:	2 x 1.8kW (2.5hp)
Weight:	320kg
Dimensions:	2084(W) x 2460(D) x 1250(H)mm
Power Requirements:	415V 3.6kW or 240V 3.6W Fused Switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Prices £*		*See Pricing Information on page 2
MM-COMB1KFT	TechSoft Minimax C30E Genius Combination Machine 3 phase (includes Key Switch + 3 Emergency Footstops)	4,499.00
MM-COMB1KFS	TechSoft Minimax C30E Genius Combination Machine 1 phase (includes Key Switch + 3 Emergency Footstops)	4,615.00
MM-EXTRACTION70P2S	Minimax Dust Extractor with Attachment Fittings for MM-COMB1 (1 phase). See page 181.	805.00
MM-SWITCH7	Integrated auto-switched socket for extractor MM-EXTRACTION70P2S.	345.00
MM-EXTRACTION70P2T	Minimax Dust Extractor with Attachment Fittings for MM-COMB1 (3 phase). See page 181.	790.00
MM-SWITCH8	Integrated auto-switched socket for extractor MM-EXTRACTION70P2T	370.00
CUSTOM-CVAC	Centralised Vacuum Extraction System. See page 180.	

TechSoft Minimax CU300E Classic



The same functionality as the C30E Genius but with greater machining capacity and longer tables for accurate preparation of larger stock. 820mm capacity against the rip fence means full size boards can be cut to any width. The squaring frame is therefore less important but one can be ordered as an optional item. Where there is high demand for prepared materials and thicker section tougher timbers are likely, then the CU300E will be an ideal choice.

Specification	
Saw:	
Saw Blade Diameter:	315mm
Cutting depth at 90°:	100mm
Max. squaring stroke:	1600mm
Cutting width on rip fence:	820mm
Speed:	4000rpm
Planer Thicknesser:	
Max Surfacing Width:	300mm
Surfacing Table Length:	1510mm
Min/Max Thicknessing:	3/200mm
Cutter Block:	TERSA with 3 knives
Feed Speed on Thicknesser:	7m/min
Overall:	
Motor:	2 x 2.2kW (3hp)
Weight:	420kg
Dimensions:	4002(W) x 3793(D) x 1250(H)mm
Power Requirements:	415V 4.4kW or 240V 4.4kW Fused Switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Prices £*		*See Pricing Information on page 2
MM-COMB3KFT	TechSoft Minimax CU300E Classic Combination Machine 3 phase (includes Key Switch + 3 Emergency Footstops)	7,060.00
MM-COMB3KFS	TechSoft Minimax CU300E Classic Combination Machine 1 phase (includes Key Switch + 3 Emergency Footstops)	7,320.00
MM-EXTRACTION70P2S	Minimax Dust Extractor with Attachment Fittings for MM-COMB3 (1 phase). See page 181.	805.00
MM-SWITCH7	Integrated auto-switched socket for extractor MM-EXTRACTION70P2S.	345.00
MM-EXTRACTION70P2T	Minimax Dust Extractor with Attachment Fittings for MM-COMB3 (3 phase). See page 181.	790.00
MM-SWITCH8	Integrated auto-switched socket for extractor MM-EXTRACTION70P2T	370.00
CUSTOM-CVAC	Centralised Vacuum Extraction System. See page 180.	

Vertical Panel Saws

Vertical Panel Saws

Koolkut KK12 Vertical Panel Saw

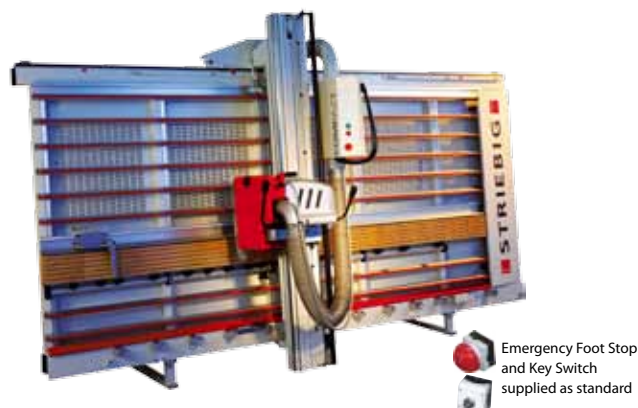


This space-saving vertical panel saw is designed for breaking down large sheet materials into manageable sizes or to precise dimensions for panel projects. It is built to industrial standards and offers a ruggedness and quality that will ensure a very long life in even the busiest school or college preparation area. Central to the design are accurate linear shafts and sealed ball bearings to give high precision and smooth operation. The saw unit will cut clean, square edges or bevels if needed. This machine will easily cope with the sheet cutting needs of any school or college. We recommend a smaller circular saw to deal with rip-cutting planks and sections. The Minimax SC1E is the perfect complement to this excellent panel saw.

Specification	
Blade Diameter:	210mm
Max Horizontal Cut:	2500mm
Max Vertical Cut:	1250mm
Cutting depth at 90/45°:	56/45mm
Motor:	1.8kW (2.4hp)
Motor Speed:	1,350-3,550rpm
Weight:	400kg
Dimensions:	3100(W) x 1170(D) x 2000(H)mm (free-standing) 3100(W) x 975(D) x 2000(H)mm (wall fix)
Power Requirements:	240V 1.8kW, Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Prices £*		*See Pricing Information on page 2
MM-PANELSAW3KF	Koolkut KK12 2500x1250 Vertical Panel Saw (Complete with Festo portable saw unit, TCT blade, stand, framework, infill panels, midway fence and quick-stop + Key Switch + Emergency Footstop)	5,720.00
MT-PS-RCG1	Rip Cut Gauge (0-200mm) for MM-PANELSAW3	90.00
MT-PS-FRH1	Floating Head Router Complete with DeWalt D26200 Router for MM-PANELSAW3	665.00
MT-PS-VBIT1	Router bit for "V-grooving" aluminium composite for MM-PANELSAW3	45.00
MT-PS-SB1	Triple Chip Saw Blade (General Purpose blade suitable for most materials) for MM-PANELSAW3	55.00
MT-PS-SB2	High Bevel Saw Blade (for MFC/Veneers etc.) for MM-PANELSAW3	80.00
MT-PS-EXT1	Dust Extractor complete with autostart and 8m hose for MM-PANELSAW3	210.00
CUSTOM-CVAC	Centralised Vacuum Extraction System. See page 180.	

Striebig Compact Saw



Swiss company, Striebig AG have been established for over 50 years and specialise exclusively in the perfection and supply of vertical panel saws for demanding commercial users. Central to Striebig design philosophy is the 'Sizing Cut' which means the sawn edge is perfectly clean and panels are cut to very close dimensional tolerance. Striebig machines are finely engineered to provide torsional rigidity and absolute parallelism. The Compact 4164 is supplied with comprehensive accessories to allow for floor or wall mounting, extraction ports for efficient dust capture and a strip cutting attachment for safe cutting of smaller pieces. Cutting capacity will easily cope with a standard 2440 x 1220mm sheet. The Striebig Compact is inherently safe to use with a fully enclosed blade, braked support rollers and an integral trapping device to prevent material movement. The optional Digital Measuring System (DMS) provides a convenient way to set up cuts to within 0.1mm and the scoring saw attachment is well worth considering. This provides an extra, smaller blade which is fractionally wider to pre-cut into the surface of the material. A scoring cut eliminates break-out resulting in clean, crisp edges on both sides of the board - even when cross-cutting veneered or laminated material.

Specification	
Blade Diameter:	250mm
Max Horizontal Cut:	3100mm
Max Vertical Cut:	1644mm
Cutting depth at 90°:	60mm
Motor:	3.9kW (5.2hp)
Motor Speed:	5250rpm
Weight:	815kg
Dimensions:	4216(W) x 1435(D) x 2390(H)mm (free-standing)
Power Requirements:	415V 4.8kW, Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Prices £*		*See Pricing Information on page 2
MM-PANELSAW5P	Striebig COMPACT 4164 Vertical Panel Saw (Complete with strip cutting attachment up to 400mm + legs for floor fixing + KeySwitch + Emergency Foot Stop + Delivery and Installation by a Striebig Approved Engineer to UK Mainland)	14,780.00
MM-PANELSAW5A	Digital Measuring System (DMS) for x and y axis for MM-PANELSAW5.	3,205.00
MM-PANELSAW5B	Scoring Saw Unit for MM-PANELSAW5	2,020.00
MM-PANELSAW5C	Additional Aluminium Small-Piece Supports for MM-PANELSAW5	145.00
MM-EXTRACTION70T	Minimax Dust Extractor with 1 bag (3 phase)	649.00
MM-SWITCH8	Integrated auto-switched socket for extractor MM-EXTRACTION70T (fitted to machine at time of purchase)	370.00
CUSTOM-CVAC	Centralised Vacuum Extraction System. See page 180.	

Bosch GCM 12GDL Professional Mitre Saw



The GCM 12GDL Mitre saw is the ideal cross-cut machine for rapidly preparing batches of stock to accurate length with clean, truly square, ends. On each side of the table are robust integrated bench extensions that pull out to provide support for longer work and make it easy to set-up stops for rapid, accurate, repeat work. In addition, the main head tilts for bevelled cuts and the support table rotates to allow mitred cuts. Both these functions have fixed detents, (or pre-set positions), for quickly setting commonly used angles. These features can be used together for cutting compound mitres and, when doing so, the soft-grip handle can be adjusted and locked in any one of four positions for safe, comfortable control.

The GCM 12GDL can be bench mounted or used with the optional work stand (see right). This provides a secure platform and support for materials up to 3,877mm in length.



Specification	
Blade Diameter:	305mm
Cutting Capacity at 0°:	104 x 341mm
Cutting Capacity at 45° mitre:	104 x 240mm
Cutting Capacity at 45° incline:	51 x 341mm
Motor:	2kW (2.8hp)
Motor Speed:	3,800rpm
Weight:	32kg
Dimensions:	820(W) x 670(D) x 690(H)mm
Power Requirements:	240V 1.8kW, Fused switch-disconnector
Warranty:	UK Mainland & Ireland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Prices £*		*See Pricing Information on page 2
MM-MITRESAW3K	Bosch GCM 12GDL Professional Glide Mitre Saw + <i>Keyswitch</i>	845.00
MM-MITRESAW3B	Bosch GTA 3800 Professional Stand for MM-MITRESAW3	225.00
MM-EXTRACTION32	TechSoft/Numatic Workshop Extractor, Double Motor. <i>See page 182.</i>	545.00
MMP-EXT-CONKIT8	Connection kit: 1 Twin Motor Numatic Extractor (MM-EXTRACTION32) to Bosch Mitre Saw	55.00
MM-SWITCH2	Auto Switch Box - Single	148.00
CUSTOM-CVAC	Centralised Vacuum Extraction. <i>See page 180.</i>	

Swordfish Fretsaw



The new Swordfish fretsaw from RJH has been designed specifically to meet stringent performance and safety requirements for schools and colleges. The design features fully enclosed reciprocal action and dust extraction points above and below the cutting table. The machine is based around heavy-duty steel fabrications to ensure low vibration, low noise and accurate cutting. A wide variety of blades are available and 400 – 1500 rpm variable speed with digital readout is provided as standard. Together, these features mean that a Swordfish is capable of cutting most of the plastics, timber and non-ferrous alloys to be found in a typical educational setting. A calibrated lever allows the table to be tilted from 45 to 135 degrees for angled cuts and a strong Perspex guard keeps fingers well away from the blade. Needless to say, Swordfish meets all UK and European statutory requirements for safe use in an educational setting.

Specification	
Motor:	0.18kW
Motor Speed:	1350rpm
Electrical Supply:	400V/3ph/50Hz or 230V/1ph/50Hz
Max Depth of Cut:	51mm
Throat Capacity:	535mm
Cut Speed:	400-1500rpm
Arm Tilt:	45 to 135°
Blade Size:	130mm
Work Table Size, Width x Depth:	350mm x 650mm
Weight:	67kg (bench) 87kg (pedestal)
Dimensions:	540(W) x 870(D) x 500(H)mm (bench) 540(W) x 870(D) x 1250(H)mm (pedestal)
Power Requirements:	240V 1.8kW, Fused switch-disconnector
Warranty:	UK Mainland & Ireland: 2 Years On-Site Elsewhere: 2 Years Return and Collect

Prices £*		*See Pricing Information on page 2
MM-FRETSAW13B	Swordfish SW Series Fretsaw for Bench Mounting (<i>1 phase</i>)	1,586.00
MM-FRETSAW13P	Swordfish SW Series with Pedestal (<i>1 phase</i>)	1,756.00
MM-FRETSAW13S	Swordfish SW Series Fretsaw with Extractor (<i>1 phase</i>)	2,874.00
MM-FRETSAW13T	Swordfish SW Series Fretsaw with Extractor (<i>3 phase</i>)	2,794.00

Hegner Multicut EDU



Specification	Multicut 1/1V - EDU	Multicut 2S/2SV - EDU	Multicut SE-EDU	Multicut QK-EDU
Table Size:	375 x 175mm	440 x 225mm	440 x 225mm	440 x 225mm
Table Tilt:	45° RH	45° RH to 12° LH	45° RH to 12° LH	45° RH to 12° LH
Throat Width:	365mm	460mm	460mm	560mm
No-load speed:	1440spm (1-EDU) 400-1440spm (1V-EDU)	1440spm (2S-EDU) 400-1440spm (2SV-EDU)	400-1440spm	400-1440spm
Stroke Length:	10mm	16mm	16mm	16mm
Motor:	80W (1-EDU) 100W (1V-EDU)	100W	100W	100W
Weight:	17kg	21kg	25kg	28kg
Dimensions:	270(W) x 520(D) x 400(H)mm	280(W) x 610(D) X 450(H)mm	280(W) x 610(D) X 450(H)mm	290(W) x 730(D) x 450(H)mm
Power Requirements:	240V 3A Fused switch-disconnector	240V 3A Fused switch-disconnector	240V 3A Fused switch-disconnector	240V 3A Fused switch-disconnector
Warranty:	UK Mainland: 3 Year Return to Base Elsewhere: 3 Year Return & Collect	UK Mainland: 3 Year Return to Base Elsewhere: 3 Year Return & Collect	UK Mainland: 3 Year Return to Base Elsewhere: 3 Year Return & Collect	UK Mainland: 3 Year Return to Base Elsewhere: 3 Year Return & Collect

Unique design details and superb build-quality have established Hegner as the leading manufacturer of precision fretsaws (or scroll saws) for professional and educational use. The Multicut 1 and 2S models feature alloy worktables and sufficient rigidity for general workshop use in timber and plastics. The SE and Quick models are more heavily constructed with cast iron precision-ground tables and will be ideal for more demanding applications in terms of precision and workload. Each machine is sold with an instruction book and all necessary tools.

N.B. Will require connection via foot-operated switch and ducting for dust extraction.

Fretsaw Stands

These provide a stable base for safe working and a flexible solution for workshop layouts.



SF-STAND5

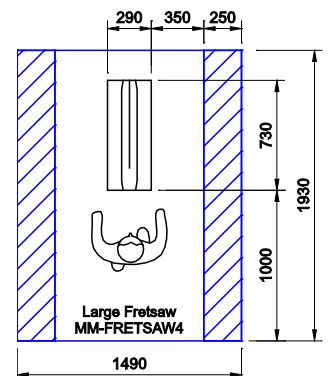
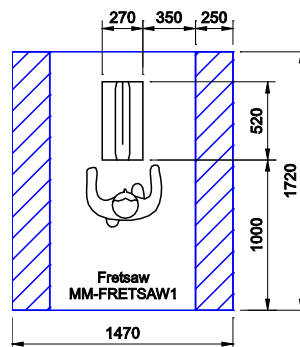


SF-STAND7

Prices £*		*See Pricing Information on page 2
MM-FRETSAW6	Fretsaw, Hegner Multicut 1-EDU	399.00
MM-FRETSAW1	Fretsaw, Hegner Multicut 1-EDU Variable Speed	499.00
MM-FRETSAW7	Fretsaw, Hegner Multicut 2S-EDU	599.00
MM-FRETSAW2	Fretsaw, Hegner Multicut 2SV-EDU Variable Speed	699.00
MM-FRETSAW8	Fretsaw, Hegner Multicut SE-EDU Variable Speed	849.00
MM-FRETSAW4	Fretsaw, Hegner Multicut QK-EDU Quick Variable Speed	1029.00
Recommended Extras (See also complete workstations on page 145)		
MM-FRETSAW1D	Footswitch for Hegner Fretsaw	67.00
SF-STAND5	Machine Bench, 700 x 600mm, adjustable height, MPX Top	159.00
SF-STAND7	Machine Bench, 700 x 600mm, adjustable height, MPX Top with underbench cupboard containing shelf	318.00
MM-EXTRACTION36	TechSoft/Numatic Standard Extractor, Single Motor (included in TechSoft Workstation TF-WS1-C1)	340.00
MM-SWITCH2	Auto Switch Box - Single	148.00
MMP-EXT-CONKIT3	Connection kit: 1 Numatic Extractor (MM-EXTRACTION21/23/32) to 1 Hegner Fretsaw	7.00
MM-EXTRACTION32	TechSoft/Numatic Workshop Extractor, Double Motor	610.00
MM-SWITCH3	Auto Switch Box - Double	167.00
MMP-EXT-CONKIT4	Connection kit: 1 Twin Motor Numatic Extractor (MM-EXTRACTION32) to 2 Hegner Fretsaws	44.00
MM-FRETSAW1B	Connection kit: Centralised Dust Extraction System to 1 Hegner Fretsaw	35.00

CAD Drawing (with Safe Working Area)

Available on request in DXF, DWG & DTD (2D Design) formats. See page 10.



TechSoft Hegner Fretsaw Stand



MM-FRETSAW9

A complete plug-and-play solution providing a Multicut 1-EDU fretsaw, extraction unit and footswitch in one compact package. Auto-switching ensures the extraction runs whenever material is being cut. Also available without the saw for schools needing a convenient solution to bring existing machinery up to current H&S regulations, or for those who wish to purchase one of the other Hegner models.

Power Requirements: 240V 2kW Fused switch - disconnector

Prices £*

*See Pricing Information on page 2

Product Code	Description	Price
MM-FRETSAW9	TechSoft Fretsaw Stand 700 x 600 x 780mm (adjustable) (Including 1 Hegner Multicut EDU-1 saw, auto-switching TechSoft / Numatic Standard Extractor and Footswitch)	1,214.00
MM-EXTRACTION215	TechSoft Fretsaw Stand 700 x 600 x 780mm (adjustable) (Excluding Fretsaw but complete with auto-switching TechSoft / Numatic Standard Extractor and Footswitch. Order fretsaw separately)	815.00

Double Hegner Fretsaw Workstation



MM-FRETSAW3

This workstation provides two Multicut 1-EDU fretsaws on a robust unit for permanent siting. Each saw has its own footswitch and the on-board extraction unit runs when either is used.

Specification

Table Height:	805mm
Dimensions:	1500(W) x 800(D) x 805(H)mm
Power Requirements:	240V 13A, Fused switch-disconnector
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return & Collect

Prices £*

*See Pricing Information on page 2

MM-FRETSAW3	Double Hegner Fretsaw Workstation (Includes 2 Multicut 1 - EDU fretsaws, auto extraction system & 2 footswitches)	2,820.00
MMP-EXT-FSBAG10	10 Replacement Bags for Extractor Used in MM-FRETSAW3	52.00
MMP-EXT-FSCART	Replacement Filter Cartridge for Extractor Used in MM-FRETSAW3	85.00

Single Hegner Fretsaw Workstation



TF-WSI-C3H1

A fully-portable cabinet housing a single Hegner Multicut 1-EDU fretsaw. This ensures a statutory safe working area around the machine wherever it is sited. Heavy-duty locking castors make moving easy, and placement safe and secure. The workstation provides a flexible solution where resources need to be shared between rooms. It is powered by a single 13A plug.

Specification

Table Height:	850mm
Dimensions:	1500(W) x 800(D) x 1255(H)mm
Power Requirements:	240V 13A, 13A Socket
Warranty:	UK Mainland: 1 Year On-Site (workstation) 3 Years Return to Base (fretsaw) Elsewhere: 1 Year Return & Collect (workstation) 3 Years Return & Collect (fretsaw)

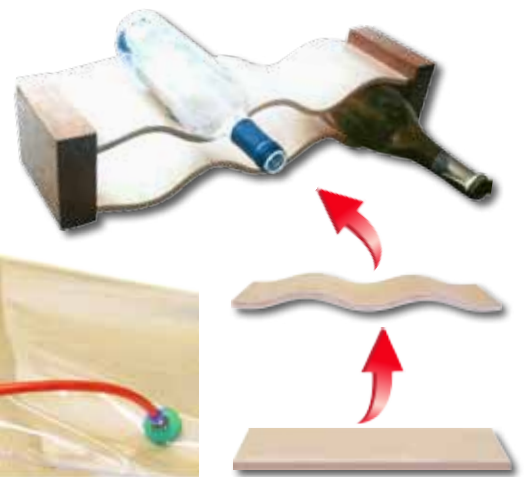
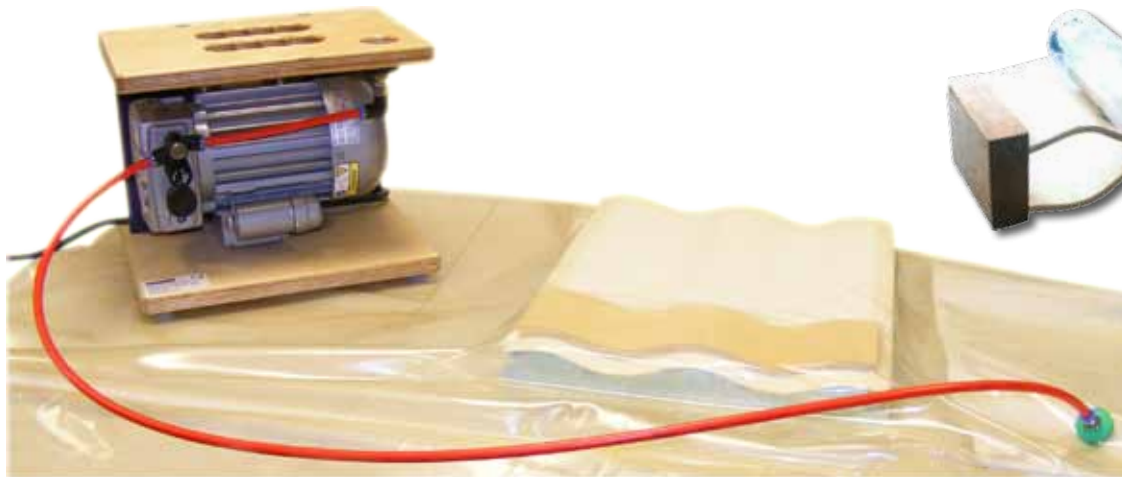
Prices £*

*See Pricing Information on page 2

TF-WS3-C3H1	TechSoft Fretsaw Workstation 1400 x 800 x 850mm. Includes 1 Hegner Multicut 1-EDU Fretsaw, Footswitch, underbench cupboards containing in-built sockets, auto-switched extractor, Gratnell trays and storage space.	2,594.00
TF-WS3-C3H	TechSoft Fretsaw Workstation 1400 x 800 x 850mm. Excludes Fretsaw but includes Footswitch, underbench cupboards containing in-built sockets, auto-switched extractor, Gratnell trays and storage space. N.B. Order fretsaw separately.	2,195.00

Vacuum Presses

Bagpress



What is a Vacuum Press and How Does it Work?

The simplest type of vacuum press uses a sealable bag and some form of vacuum generator. By placing materials in the bag, sealing it and then sucking out most of the air, a pressure differential is created between the reduced pressure inside the bag and atmosphere on the outside. It is this pressure differential that is used in vacuum pressing.

Most vacuum pumps and generators achieve around 85% vacuum. As atmospheric pressure is about 10 tonnes per square metre, this means that a pressure of 8.5 tonnes per square metre is being exerted on everything inside the bag.

Why buy a Bagpress?

The introduction of vacuum pressing to the education market is one of the most exciting developments in design and technology in recent years. The process of vacuum pressing is very simple yet it produces professional quality results and the potential for its uses are limitless.

Typical school projects might include making chairs, skateboards, salad servers, picture frames and clocks.

The Bagpress system that you buy for your school is not a defeatured, smaller scale, educational version of the equipment but is exactly the same piece of machinery that is sold into a wide variety of industrial manufacturers throughout the world. It allows you to teach the design and prototyping process far more thoroughly than if you are having to use the alternative 'male and female former' method of laminating.

What can a Bagpress do for your students?

Many school lamination projects using the traditional male/female tooling system have failed over the years due to the difficulty in producing accurately matched pairs of moulds. Vacuum pressing overcomes this problem by only requiring a single mould, and this can be cut from a block of styrofoam or extruded polystyrene. This dramatically increases the amount of time a student has available to devote to the product itself and enables much easier fine tuning of the design. This exposes the student to a true prototyping and product development cycle as would happen in industry.

The use of a mould and the repeatability of the process also allows students to consider batch production techniques and the way in which jigs and other tooling can be used to ensure efficiency and accuracy in manufacture.

How easy is it to use?

The range of projects that can be tackled is wide and a Bagpress system can be safely used by every age of student from primary through to graduate level. In many cases we are told that the Bagpress never gets put away as there is always someone who needs to use it at some point during the day.

Student Projects



Sit and Ride Toy

Create stiff, novel forms to meet structural and ergonomic needs.



Occasional Table

Laminated components provide a striking new take on 'traditional' projects.



Mandolin

Decorative inlays are easily and securely incorporated using the Bagpress technique.



Table and Storage

Vacuum pressing inspires new starting points for innovative design solutions.



Guitar

Bagpress provides a simple and reliable tool for bespoke lamination - and much more!



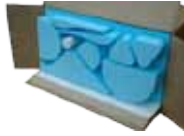
Bird House

Novel design solutions and water resistant materials, Bagpress offers great versatility.

Accessories

Moulds

Bagpress have developed three sets of pre-cut moulds for schools referred to as Nested Mould Kits 1, 2 & 3. They have a selection of moulds for specific projects such as salad servers and chair backs as well as a variety of abstract circular and elliptical curves and wave forms which can be used in the production of a wine rack for example.



The abstract forms ensure that students aren't all tempted to make exactly the same thing. They can study the shapes available and use these to inspire their own imagination and creativity for personal design projects. These mould kits offer an ideal way to 'hit the ground running' when you first purchase a vacuum press system.

Adhesive

At Bagpress they tried and tested more than 15 different types of PVA before choosing the one they now use in their own manufacturing workshop and this is the same product we sell. 99% of all the panels they laminate and veneer are bonded using a high grade D3 (water resistant) PVA adhesive. This type of adhesive has improved significantly in the last 20 years and, with the introduction of specialist materials such as flexible plywood can now be considered as ideal for most veneering and laminating jobs.



Glue Spreader

The Pizzi glue spreader is the only spreader Bagpress use and, once you've used one, you won't want to use anything else. Our price also includes a moisture resistant MDF stand for the spreader.



Materials

Flexible Plywood

The core material used for creating curves and shapes is a flexible plywood which is extremely versatile and bendy until bonded with adhesive and other layers such as birch plywood or veneer when it then holds its rigid form. We supply flexiply in 3, 5 and 8mm thicknesses.



Thin Plywood

We supply birch plywood in 0.8mm thick 1200 x 1200mm sheets and 1.5mm thicknesses in 1525 x 1525mm sheets.



Veneers

We have a mixed pack of coloured and exotic veneers - ideal for all your veneering projects and covering a total area of one square metre.

Prices £*		*See Pricing Information on page 2
Starter Pack		
MM-VPPACK1	Vacuum Press Starter Pack. <i>(Includes 8m³ per hour vacuum press, 1300 x 2500mm bag, footswitch, 180mm Pizzi glue spreader and stand, two 5kg cross linking D3 PVA adhesive, Nested mould kit 1, 1940 x 810 x 118mm mould making foam, two 1525 x 1525 x 1.5mm birch plywood, two 2440 x 1220 x 5mm flexiply, two 2440 x 1220 x 8mm flexiply, 2440 x 1220mm flexiveneer - choose either oak, cherry, ash, sapele or maple, 500ml finishing oil, two 19mm wide self adhesive veneer tape, free veneer offcuts pack)</i>	1,335.00
Professional Electric Kits		
MM-VACPRESS1	Pro4 Electric Vacuum Press Kit. <i>4m³ per hour, 240V, Dry running pump, 85% vacuum, supplied with 1300x2500mm 300 micron polyurethane bag & carrying frame. Built-in vacuum gauge & footswitch assembly - 8mm tube</i>	599.00
MM-VACPRESS2	Pro8 Electric Vacuum Press Kit. <i>8m³ per hour, 240V, Dry running pump, 85% vacuum, supplied with 1300x2500mm 300 micron polyurethane bag & carrying frame. Built-in vacuum gauge & footswitch assembly - 8mm tube</i>	699.00
Low Cost Electric Kits		
MM-VACPRESS3	Minipress MkII Electric Kit. <i>85% vacuum, supplied with 800 x 1300mm, 200 micron polyurethane bag</i>	299.00
Spare Bags		
MMP-VP-BAG1	1300 x 800mm, 200 micron Seamless Polyurethane Bag Kit (for Minipress MKII). <i>Includes sealing strips, bag connector and storage tube.</i>	59.50
MMP-VP-BAG2	1300 x 2500mm, 300 micron Seamless Polyurethane Bag Kit (for Pro4 and Pro8). <i>Includes sealing strips, bag connector and storage tube.</i>	99.50
Mould Kits		
MT-VP-MKIT1	Nested Mould Kit 1 - <i>eight moulds including salad servers, child's chair, triangular clock and three semicircles</i>	175.00
MT-VP-MKIT2	Nested Mould Kit 2 - <i>seven moulds of abstract shapes including elliptical curves, wave forms and 90° radiused bends</i>	175.00
MT-VP-MKIT3	Nested Mould Kit 3 - <i>two conical moulds, one circular curve and one elliptical</i>	135.00
MT-VP-MKIT12	Mould Kit 1 + Mould Kit 2	295.00
MT-VP-MKIT13	Mould Kit 1 + Mould Kit 3	295.00
MT-VP-MKIT23	Mould Kit 2 + Mould Kit 3	295.00
MT-VP-MKIT123	Mould Kit 1 + Mould Kit 2 + Mould Kit 3	395.00
Adhesives and Accessories		
MT-VP-GLSP1	180mm Hand held Pizzi Glue Spreader with Rubber Roller and Stand	99.50
MMP-VP-PVA1	5kg Bagpress D3 PVA - waterproof & creep resistant adhesive - ideal for vacuum pressing	29.95
Flexible Plywood		
TA-PLYFS-3	1220 x 2440 x 3mm Flexible Plywood	35.00
TA-PLYFS-5	1220 x 2440 x 5mm Flexible Plywood	35.00
TA-PLYFS-8	1220 x 2440 x 8mm Flexible Plywood	44.00
Thin Plywood		
TA-PLYBS-08	1220 x 1200 x 0.8mm Birch Plywood	34.00
TA-PLYBS-15	1525 x 1525 x 1.5mm Birch Plywood	37.00
TA-PLYHS-15	1220 x 1220 x 1.5mm Hardwood Plywood	29.00
Coloured Veneers		
TA-VENPK1	Mixed Pack of approx. nine different coloured veneers. <i>Total area 1m². Contents may vary.</i>	27.00

Wood Turning

Wood Turning Lathes

DB 1100 Wood Lathe



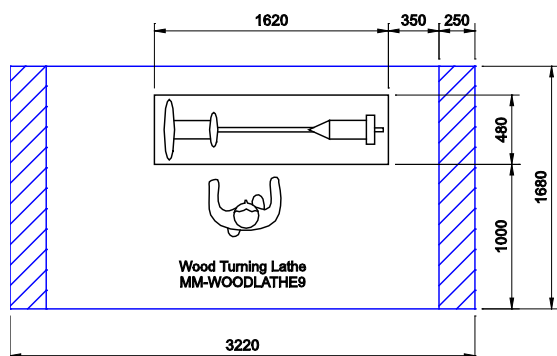
Emergency Foot Stop supplied as standard

A large capacity, versatile, but low cost wood turning lathe. The long between-centres distance means that spindle work over 1m in length can easily be achieved. The ingenious swivelling head allows large bowls to be turned with ease. Powered by a quiet running 750W (1hp) motor, the variable speed drive gives a speed range from 500 to 2000rpm. The machine features a heavy cast iron bed bolted to cast iron legs for vibration free running. The DB 1100 provides an economical solution for everyday woodturning needs.

Specification	
Distance Between Centres:	1100mm
Swing Over Bed:	358mm
Spindle Speeds:	500 - 2000rpm (variable, 10 stages)
Motor:	0.75kW (1hp)
Weight:	92Kg
Dimensions:	1620(W) x 480(D) x 1160(H)mm
Power Requirements:	240V 0.75kW, Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Standard Accessories

300mm tee rest & 150mm face plate.



See page 10 for drawing details.

Prices £*		
*See Pricing Information on page 2		
MM-WOODLATHE24F	DB 1100 Wood Lathe (includes Emergency Foot Stop)	902.00
MM-SWITCH4	Auto Switch Box - Single	185.00
MM-EXTRACTION70P3S	Minimax Dust Extractor with Attachment Fittings for MM-WOODLATHE (1 phase)	795.00
CUSTOM-CVAC	Centralised Vacuum Extraction System. See page 180.	

Minimax T124E Wood Lathe



MM-WOODLATHE22

Emergency Foot Stop supplied as standard

A sturdy lathe with a long bed and four speeds, making it ideal for spindle work between centres. Bowl work can be tackled over the bed, but the relatively high spindle speed means blanks will need to be of modest diameter and well-balanced. The T124 comes into its own for copy work where small batches of matching spindles can be produced from a master copy. This machine allows a good introduction to production (rather than 'craft') woodturning.

Specification	
Distance Between Centres:	1150mm
Swing Over Bed:	200mm
Spindle Speeds:	570/1000/1850/2500rpm
Motor:	1.1kW (1.5hp)
Weight:	125Kg (standard machine)
Dimensions:	1930(W) x 4750(D) x 1260(H)mm
Power Requirements:	415V 1.1kW or 240V 1.1kW Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Standard Accessories

Floor Stand and Tool Tray, Fixed Rest complete with support, 4 Jaw Lathe Chuck dia. 120mm, Faceplate dia. 300mm with holes, Screw Chuck dia. 70mm, Cup Chuck dia. 40mm.

Prices £*		
*See Pricing Information on page 2		
MM-WOODLATHE23FT	TechSoft Minimax T124E Wood Lathe 3 phase (includes Emergency Foot Stop)	2,545.00
MM-WOODLATHE23FS	TechSoft Minimax T124E Wood Lathe 1 phase (includes Emergency Foot Stop)	2,585.00
MM-WOODLATHE22FT	TechSoft/Minimax T124E Wood Lathe with Copying Device 3 phase (includes Emergency Foot Stop)	3,655.00
MM-WOODLATHE22FS	TechSoft/Minimax T124E Wood Lathe with Copying Device 1 phase (includes Emergency Foot Stop)	3,695.00
MM-SWITCH4	Auto Switch Box - Single	185.00
MM-EXTRACTION70P3S	Minimax Dust Extractor with Attachment Fittings for MM-WOODLATHE (1 phase)	795.00
MM-EXTRACTION70P3T	Minimax Dust Extractor with Attachment Fittings for MM-WOODLATHE (3 phase)	780.00
CUSTOM-CVAC	Centralised Vacuum Extraction System. See page 180.	

Graduate Variturn Rebuilt & Variturn 1630



Graduate lathes have long set the standard for professional and educational woodturning. Heavy, cast-iron construction and massive spindle bearings ensure smooth, quiet running and the complete absence of vibration. The addition of infinitely variable speed control from 300 to 2400rpm on these new Variturn models makes this benchmark machine even better. Machines are available as either rebuilt or new. Rebuilt machines are fully reworked to include re-ground beds, new bearings, chrome and paint. They appear 'as new' both cosmetically and mechanically. Brand new machines are built in the UK using European castings and top quality components. All Variturn models are fitted with 1.1kW motors and the latest electronic control system for infinitely variable speed.

Specification	
Distance Between Centres:	762mm or 1066mm or 1371mm
Swing Over Bed:	300mm inboard, 457mm outboard
Spindle Speeds:	300-2400rpm (variable)
Motor:	1.1kW (1.5hp)
Dimensions:	1550/1854/2159(W) x 400(D) x 1150(H)mm
Weight:	228Kg (762 bed length)
Power Requirements:	415V 1.1kW or 240V 1.1kW Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Standard Accessories

355mm tee rest, 190mm tee rest, 150mm face plate, Revolving centre & 4 pt driving centre.

Prices £*		*See Pricing Information on page 2
MM-WOODLATHE10S	Graduate Variturn 1630 762mm Wood Lathe with Emergency Footstop, 1 phase	*3,850.00
MM-WOODLATHE19S	Graduate Variturn Rebuilt 762mm Wood Lathe with Emergency Footstop, 1 phase	*2,460.00
MM-WOODLATHE20S	Graduate Variturn Rebuilt 1066mm Wood Lathe with Emergency Footstop, 1 phase	*2,690.00
MM-WOODLATHE21S	Graduate Variturn Rebuilt 1371mm Wood Lathe with Emergency Footstop, 1 phase	*2,921.00
MM-SWITCH4	Auto Switch Box - Single	185.00
MM-EXTRACTION70P3S	Minimax Dust Extractor with Attachment Fittings for MM-WOODLATHE (1 phase)	795.00
MM-EXTRACTION70P3T	Minimax Dust Extractor with Attachment Fittings for MM-WOODLATHE (3 phase)	780.00
CUSTOM-CVAC	Centralised Vacuum Extraction System. See page 180.	
*N.B. For 3 phase versions of Variturn machines add £50.		
Original Graduate Classic Rebuilt (0.75kW motor, manual belt change)		
If budgets are tight, this original Graduate may be the answer. Re-built to the same standards as Variturn models but featuring the standard 0.75kW motor and manual belt-change speed control.		
MM-WOODLATHE13	Graduate Classic Rebuilt 762mm Wood Lathe with Emergency Footstop, 1 phase or 3 phase	1,920.00
MM-WOODLATHE14	Graduate Classic Rebuilt 1066mm Wood Lathe with Emergency Footstop, 1 phase or 3 phase	2,150.00

Robert Sorby Wood Turning Essentials

Turning Tool Set

Robert Sorby are well known for producing the finest turning tools available and these sets feature polished ash handles and hardened HSS blades. The 6-Piece set with full-sized 410mm+ handles will give young and older users confident control for cutting and scraping work. The additional bowl gouge and wider skew chisel makes this the preferred option as a general-purpose set for schools. The profiles included will provide beginners and more experienced users a versatile tool set for any size of spindle work and general bowl turning. The 5-Piece set has 360mm handles and is economical solution for mainly smaller spindle work.



Prices £*		*See Pricing Information on page 2
MT-WL-TTS1	5 Piece Turning Tool Set (360mm handles). Includes 19mm (3/4") Spindle Roughing Gouge, 10mm (3/8") Spindle Gouge, 12mm (1/2") Flat Skew Chisel, 3mm (1/8") Parting Tool and 12mm (1/2") Scraper.	136.00
MT-WL-TTS2	6 Piece Turning Tool Set (410mm handles). Includes 19mm (3/4") Spindle Roughing Gouge, 10mm (3/8") Spindle Gouge, 10mm (3/8") Bowl Gouge, 19mm (3/4") Oval Skew Chisel, 3mm (1/8") Parting Tool and 12mm (1/2") Round Scraper.	181.00

Robert Sorby Patriot Chuck

This superbly engineered chuck provides a safe and secure way to hold work for turning. Unlike conventional lathe chucks, there are no projecting jaws to cause injury. The work is held by self-centering collets that either grip the outside of a shallow 50mm boss or the inside of a 50mm recess. This boss or recess is turned first and becomes the foot of the bowl or platter. A screw chuck to hold the blank for turning the foot or recess is supplied as a standard accessory. Numerous jaws and accessories for special jobs are also available – please ask for details. The Patriot chuck is supplied with an insert to make it suitable for any lathe available in the UK - when ordering we need to know which lathe you are using.

Prices £*		*See Pricing Information on page 2
MT-WL-CHUCK1	Patriot Chuck with insert including 50mm jaws and Screw Chuck. Please specify which lathe this is required for when ordering.	150.00

Robert Sorby Pro-Edge Sharpening System

Safe and effective woodturning requires perfectly sharp tools and this robust unit will deliver just that. The powerful motor drives a flat belt with just the right grade of abrasive to grind, hone and polish woodturning tools, chisels, plane irons or any edge tool where the keenest of edges is needed. The unit is supplied with two belts for general work and incorporates a patented jig system to set and hold the exact sharpening angle needed.



Standard Accessories

Jigs for Skew Chisels, Gouges and Fingernail Profiles, 2 Aluminium Oxide Belts (120 & 240 grit), Zirconium Belt 60 grit.

Prices £*		*See Pricing Information on page 2
MM-GRINDER8KF	ProEdge Plus sharpening system with Key Switch & Emergency Footstop	492.00

Pillar Drills

Bench and Floor Mounted Drills

Optimum B17 / B23 Pro Bench Drills

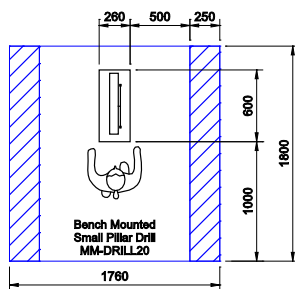


Optimum B17 shown on optional stand with cupboard

Bench top mounted, these versatile and easy to operate pillar drills can be used for the precision drilling of metal, wood and plastics.

N.B. The B17 is suitable for mounting on benches 750-900mm high whereas the B23 is suitable for mounting on standard height tables (max 750mm).

Specifications	B17 Pro (Bench)	B23 Pro (Bench)
Drilling Capacity (steel):	16mm	25mm
Spindle:	2 MT	2 MT
Spindle Speed:	500-2520rpm (5 speed)	200-2440rpm (12 speed)
Spindle Travel:	65mm	80mm
Throat Depth:	152mm	180mm
Column Diameter:	60mm	73mm
Table Size:	235 x 220mm	280 x 250mm
Table Tilt:	-45° to +45°	-45° to +45°
Bench Height:	750-900mm	600-750mm
Motor:	0.5kW (0.67hp)	0.75kW (1hp)
Weight:	39kg	66kg
Dimensions:	260(W)x600(D)x860(H)mm	320(W)x650(D)x1010(H)mm
Power Requirements:	240V 0.5kW Fused switch-disconnector	415V 0.75kW or 240V 0.75kW Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect	



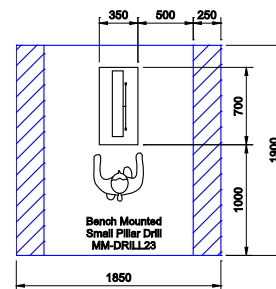
See page 10 for drawing details.

Optimum B26 / B33 Pro Drills



Pedestal floor-mounted, these versatile and easy to operate pillar drills can be used for the precision drilling of metal, wood and plastics. Available in 3 or single phase options.

Specifications	B26 Pro (Floor)	B33 Pro (Floor)
Drilling Capacity (steel):	25mm	30mm
Spindle:	3 MT	4 MT
Spindle Speed:	200-2440rpm (12 speed)	120-1810rpm (9 speed)
Spindle Travel:	85mm	120mm
Throat Depth:	210mm	254mm
Column Diameter:	80mm	92mm
Table Size:	330 x 290mm	475 x 425mm
Table Tilt:	-45° to +45°	-45° to +45°
Motor:	0.75kW (1hp)	1.1kW (1.5hp)
Weight:	82kg	135kg
Dimensions:	350(W)x700(D)x1670(H)mm	480(W)x860(D)x1720(H)mm
Power Requirements:	415V 0.75kW or 240V 0.75kW Fused switch-disconnector	415V 1.1kW or 240V 1.1kW Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect	



See page 10 for drawing details.

Prices £*		*See Pricing Information on page 2
MM-DRILL20FS	Optimum Bench Drill B17 Pro 1ph + Emergency Foot Stop	450.00
MM-DRILL21FS	Optimum Bench Drill B23 Pro 1ph + Emergency Foot Stop	635.00
MM-DRILL21FT	Optimum Bench Drill B23 Pro 3ph + Emergency Foot Stop	635.00
SF-STAND5	Machine Bench, 700 x 600mm, adjustable height, MPX Top (suitable for B17 only)	159.00
SF-STAND7	Machine Bench, 600 x 600mm, adjustable height, MPX Top with underbench cupboard containing shelf (suitable for B17 only)	318.00

Prices £*		*See Pricing Information on page 2
MM-DRILL23FS	Optimum Drill B26 Pro 1ph + Emergency Foot Stop	734.00
MM-DRILL23FT	Optimum Drill B26 Pro 3ph + Emergency Foot Stop	734.00
MM-DRILL22FS	Optimum Drill B33 Pro 1ph + Emergency Foot Stop	1,037.00
MM-DRILL22FT	Optimum Drill B33 Pro 3ph + Emergency Foot Stop	1,037.00

Woodpecker Bench Drills



These robust, accurate machines are designed specifically to meet the stringent operation and safety requirements for education. Bench drills are available in two heights – B450 variants use the main work table as the machine base. This sacrifices maximum capacity for a comfortable and safe working height making them ideal for younger pupils. All fitted with keyless chucks and calibrated depth stops as standard.

Specifications	8161B	8201B/8203B
Drilling Capacity (steel):	13mm	16mm
Spindle:	2 MT	2 MT
Spindle Speed:	180-2740rpm (12 speed)	160-3000rpm (16 speed)
Spindle Travel:	80mm	80mm
Throat Depth:	195mm	215mm
Column Diameter:	70mm	80mm
Table Size:	300 x 300mm	335 x 335mm
Table Tilt:	Non-tilting	
Bench Height:	600-750mm (750-900mm for Reduced Height Models)	
Motor:	0.55kW	0.75kW
Weight:	65kg	80kg
Dimensions:	400(W)x720(D)x1065(H)mm (or 720mm reduced height)	450(W)x700(D)x1100(H)mm (or 720mm reduced height)
Power Requirements:	240V 0.55kW Fused switch-disconnector	415V 0.75kW or 240V 0.75kW Fused switch-disconnector
Warranty:	UK Mainland: 2 Years On-Site Elsewhere: 2 Years Return and Collect	

Woodpecker Floor Drills



All Woodpecker drills feature cast iron construction for rigidity and smooth operation, adjustable work tables, keyless chucks and calibrated depth stops. These floor (or pedestal) versions offer maximum versatility for working height and two power/capacity options.

Specifications	8201P/8203P	8323P
Drilling Capacity (steel):	16mm	20mm
Spindle:	2 MT	3 MT
Spindle Speed:	160 - 3000rpm (16 speed)	190 - 2000rpm (12 speed)
Spindle Travel:	80mm	120mm
Throat Depth:	215mm	260mm
Column Diameter:	80mm	92mm
Table Size:	335 x 335mm	475 x 425mm
Table Tilt:	Non-tilting	
Motor:	0.75kW (1hp)	1.1kW (1.5hp)
Weight:	120kg	140kg
Dimensions:	450(W)x700(D)x1700(H)mm	560(W)x890(D)x1700(H)mm
Power Requirements:	415V 0.75kW or 240V 0.75kW Fused switch-disconnector	415V 1.1kW Fused switch-disconnector
Warranty:	UK Mainland: 2 Years On-Site Elsewhere: 2 Years Return and Collect	

Prices £*

*See Pricing Information on page 2

MM-DRILL30FS	Woodpecker Reduced Height Bench Drill 8161B-450 (1 phase) + Emergency Foot Stop	1,232.00
MM-DRILL31FS	Woodpecker Reduced Height Bench Drill 8201B-450 (1 phase) + Emergency Foot Stop	1,524.00
MM-DRILL31FT	Woodpecker Reduced Height Bench Drill 8203B-450 (3 phase) + Emergency Foot Stop	1,524.00
MM-DRILL32FS	Woodpecker Bench Drill 8161B (1 phase) + Emergency Foot Stop	1,232.00
MM-DRILL33FS	Woodpecker Bench Drill 8201B (1 phase) + Emergency Foot Stop	1,524.00
MM-DRILL33FT	Woodpecker Bench Drill 8203B (3 phase) + Emergency Foot Stop	1,524.00
MT-DR-LGT61	Switched downlight for MM-DRILL30/31/32/33 (fitted at time of purchase)	34.50
MT-DR-CHK61	Keyed Drill Chuck & Arbor for MM-DRILL30/31/32/33	130.00
MT-DR-VICE61	Heavy Duty Drill Vice	85.00

Prices £*

*See Pricing Information on page 2


MM-DRILL34S	Woodpecker Pedestal Mounted Drill 8201P (1 phase) + Emergency Foot Stop	1,591.00
MM-DRILL34T	Woodpecker Pedestal Mounted Drill 8203P (3 phase) + Emergency Foot Stop	1,591.00
MM-DRILL35T	Woodpecker Pedestal Mounted Drill 8323P (3 phase) + Emergency Foot Stop	1,591.00
MT-DR-LGT61	Switched downlight for MM-DRILL34/35 (fitted at time of purchase)	34.50
MT-DR-CHK61	Keyed Drill Chuck & Arbor for MM-DRILL34/35	130.00
MT-DR-VICE61	Heavy Duty Drill Vice	85.00

Pillar Drills

Bench and Floor Mounted Drills

Meddings Compact Bench & Floor Drills

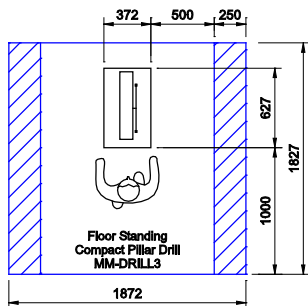


 Emergency Foot Stop supplied as standard (excluding fitting)

Ideal for lighter duty drilling work, the floor machine has table adjustment and the bench machine has a raise/lower head, using the base as the table. Adjustment by rack/pinion mechanism is standard. Both machines are supplied with a 'mushroom' style stop switch for fitting on installation via the standard no-volt/overload release starter. Available in single-phase electrical supply only.

N.B. The Bench height required for the bench drill is 850-900mm.

Specifications	Bench	Floor
Drilling capacity (steel):	13mm	13mm
Spindle:	Fitted chuck	Fitted chuck
Spindle Speed:	500 - 4000rpm (5 speed)	500 - 4000rpm (5 speed)
Spindle Travel:	100mm	100mm
Throat Depth:	194mm	194mm
Column Diameter:	70mm	70mm
Table Size:	235 x 409mm (Base)	235 x 409mm
Table Tilt:	Non-tilting	Non-tilting
Bench Height:	850-900mm	N/A
Motor:	0.25kW (0.34hp)	0.25kW (0.34hp)
Weight:	46kg	61kg
Dimensions:	372(W) x 627(D) x 815(H) mm	372(W) x 627(D) x 1577(H) mm
Power Requirements:	240V 0.25kW, Fused switch-disconnector	
Warranty:	UK Mainland: 1 Year On-Site; 8 Years Parts Only Elsewhere: 8 Years Parts Only	




See page 10 for drawing details.

Prices £*		*See Pricing Information on page 2
MM-DRILL3F	Meddings Compact Floor Drill inc. 1-13mm Chuck & Arbor + Emergency Foot Stop	1,808.00
MM-DRILL3AF	Meddings Compact Bench Drill inc. 1-13mm Chuck & Arbor + Emergency Foot Stop	1,558.00

Meddings LB1 & LF1 Drills

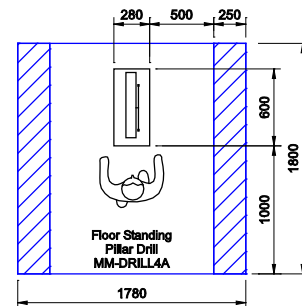


 Emergency Foot Stop supplied as standard with LB1 (excluding fitting)

This floor or bench mounted drill incorporates a built-in low voltage worklight and table adjustment by rack/pinion mechanism. An integrated kick-stop switch is fitted to the front of the floor-mounted machine which is wired into a no-volt/overload release starter. A separate 'mushroom' style stop switch is supplied with the bench-mounted model ready for fitting on installation.

N.B. The Bench height required for the bench drill is 850-900mm.

Specifications	LB1 (Bench)	LF1 (Floor)
Drilling Capacity (steel):	18mm	18mm
Spindle:	2 MT	2 MT
Spindle Speed:	400 - 3600rpm (5 speed)	400 - 3600rpm (5 speed)
Spindle Travel:	75mm	75mm
Throat Depth:	185mm	185mm
Column Diameter:	70mm	70mm
Table Size:	300 x 390mm	300 x 390mm
Table Tilt:	Non-tilting	Non-tilting
Bench Height:	850-900mm	N/A
Motor:	0.45kW (0.6hp)	0.45kW (0.6hp)
Weight:	77kg	133kg
Dimensions:	280(W) x 600(D) x 865(H) mm	280(W) x 600(D) x 1710(H) mm
Power Requirements:	415V 0.45kW or 240V 0.45kW, Fused switch-disconnector	
Warranty:	UK Mainland: 1 Year On-Site; 8 Years Parts Only Elsewhere: 8 Years Parts Only	



See page 10 for drawing details.

Prices £*		*See Pricing Information on page 2
MM-DRILL4S	Meddings LF1 Floor Drill (1 phase) inc. 1-13mm Chuck & Arbor + Emergency Foot Stop	2,756.00
MM-DRILL4T	Meddings LF1 Floor Drill (3 phase) inc. 1-13mm Chuck & Arbor + Emergency Foot Stop	2,756.00
MM-DRILL4AFS	Meddings LB1 Bench Drill (1 phase) inc. 1-13mm Chuck & Arbor + Emergency Foot Stop	2,536.00
MM-DRILL4AFT	Meddings LB1 Bench Drill (3 phase) inc. 1-13mm Chuck & Arbor + Emergency Foot Stop	2,536.00

Scheppach Tiger 5

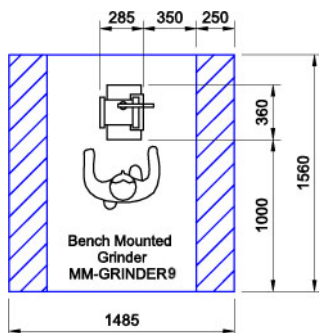


Designed specifically to sharpen and hone a wide range of wood cutting tools, this machine will produce the perfect razor-sharp edges needed for the finest of work. The grinding wheel runs slowly in a water trough to prevent heat build-up and the leather honing wheel removes the burr to leave a perfectly polished cutting edge. The powerful motor is made for continuous operation and is protected from water splashes by an enclosed housing.

Specification	
Wheel Size:	250 x 40mm
Wheel Speed:	120rpm
Motor:	0.12kW
Weight:	18.5kg
Dimensions:	360(W) x 285(D) x 275(H)mm
Power Requirements:	240V 2A, Fused switch-disconnector
Warranty:	UK Mainland: 2 Years Return to Base Elsewhere: 2 Years Return and Collect

CAD Drawing (with Safe Working Area)

Available on request in DXF, DWG & DTD (2D Design) formats. See page 10.



RJH Finishing BEAR 1

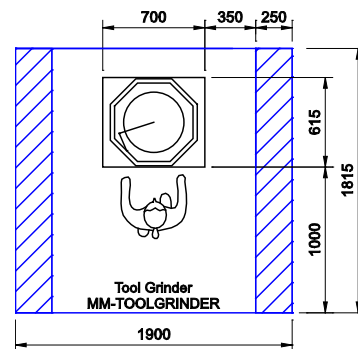


Essential for maintaining edge tools, the BEAR 1 features a controlled 110rpm wheel speed, force-fed recirculatory coolant system and integral oil reservoir with filter. The tool holder accepts up to 60mm wide blades so is ideal for all chisels and most plane irons. The centre swivel arm now has fine adjustment control to ensure that tool edge and grinding wheel remain in perfectly flat contact.

Specification	
Wheel Size:	406 x 32mm
Wheel Speed:	110rpm
Motor:	1 Phase: 0.25kW (0.34hp) 3 Phase: 0.18kW (0.24hp)
Weight:	105kg
Dimensions:	700(W) x 615(D) x 1120(H)mm
Power Requirements:	415V 0.18kW or 240V 0.25kW, Fused switch-disconnector
Warranty:	UK Mainland: 2 Years On-Site Elsewhere: 2 Years Return and Collect

CAD Drawing (with Safe Working Area)

Available on request in DXF, DWG & DTD (2D Design) formats. See page 10.



Prices £*

*See Pricing Information on page 2

MM-GRINDER9	Scheppach Tiger 5 Professional Whetstone Grinder c/w universal Jig 100	208.00
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Prices £*

*See Pricing Information on page 2

MM-TOOLGRINDERS	RJH Finishing Bear 1 Grinder (1 Phase)	2,740.00
MM-TOOLGRINDERT	RJH Finishing Bear 1 Grinder (3 Phase)	2,612.00

Grinders

Double Ended Grinders

RJH Finishing Gryphon Grinder

Bench Mounted

Gryphon grinders have a long-established and well-deserved reputation for quality, reliability and longevity. This latest machine features high quality components and precision-balanced wheels for minimal noise and vibration. Adjustable tool rests with positive locking action are standard, and safety is assured with full wheel guarding and heavy duty polycarbonate eye shields.



An off-hand grinder is essential to maintain the condition of both hand and machine tooling, and at least one can be regarded as 'standard equipment' to support one or more workshops. N.B. Once shaped to the correct profile with this machine, the RJH Bear 1 or Scheppach Tiger 5 (see page 153) should be used to hone fine woodworking tools to a sharp edge.

The machine-only version is for customers who wish to install onto side benching. A foot-stop is provided for mounting as appropriate. LEV is not a requirement if the machine is sited where PPE measures can protect the operator from dust inhalation. (The grinder is likely to be sited in a preparation area for, mainly, technician's use.) In a classroom, machines with LEV are essential.

Specification (Bench Mounted)	
Wheel Size:	200 x 25mm
Wheel Speed:	1 Phase: 2880rpm; 3 Phase: 3450rpm
Centre of Grinding Wheel:	150mm(H)
Motor:	1 Phase: 0.70kW (0.94hp) 3 Phase: 0.85kW (1.14hp)
Weight:	26kg
Dimensions:	557(W) x 333(D) x 360(H)mm
Power Requirements:	415V 0.85kW or 240V 0.70kW, Fused switch-disconnector
Warranty:	UK Mainland: 2 Years On-Site Elsewhere: 2 Years Return and Collect

Pedestal Mounted

The robust steel pedestal includes the required foot-stop and provides a compact solution where dust control and containment can be dealt with by normal 'housekeeping' and PPE measures.



Specification (Pedestal Mounted)	
Wheel Size:	200 x 25mm
Wheel Speed:	1 Phase: 2880rpm; 3 Phase: 3450rpm
Centre of Grinding Wheel:	915mm(H)
Motor:	1 Phase: 0.70kW (0.94hp) 3 Phase: 0.85kW (1.14hp)
Weight:	50kg
Dimensions:	560(W) x 435(D) x 1150(H)mm
Power Requirements:	415V 0.85kW or 240V 0.70kW, Fused switch-disconnector
Warranty:	UK Mainland: 2 Years On-Site Elsewhere: 2 Years Return and Collect

With Integrated Stand/Extractor



This fully-integrated solution provides a high quality Gryphon grinder with everything needed to allow it to be sited almost anywhere given appropriate safety working area (SWA) requirements. The LEV system auto-runs with the grinder and waste is collected in a pull out tray. The steel cabinet includes a positive knee-stop and a shaker handle which is used to shake excess dust off the filter.

Specification (Integrated Stand/Extraction)	
Wheel Size:	200 x 25mm
Wheel Speed:	1 Phase: 2880rpm; 3 Phase: 3450rpm
Centre of Grinding Wheel:	905mm(H)
Extraction Drawer Capacity:	8 litres
Extraction Motor:	0.55kW (0.74hp)
Motor:	1 Phase: 0.70kW (0.94hp) 3 Phase: 0.85kW (1.14hp)
Weight:	79kg
Dimensions:	560(W) x 645(D) x 1115(H)mm
Power Requirements:	415V 1.4kW or 240V 1.3kW, Fused switch-disconnector
Warranty:	UK Mainland: 2 Years On-Site Elsewhere: 2 Years Return and Collect

Prices £*

*See Pricing Information on page 2

MM-GRINDER1BFT	RJH Finishing Gryphon Grinder for Bench Mounting (3 phase) + Emergency Foot Stop	*1,342.00
MM-GRINDER1BFS	RJH Finishing Gryphon Grinder for Bench Mounting (1 phase) + Emergency Foot Stop	*1,399.00
MM-GRINDER1PT	RJH Finishing Gryphon Grinder with Pedestal (3 phase)	*1,658.00
MM-GRINDER1PS	RJH Finishing Gryphon Grinder with Pedestal (1 phase)	*1,715.00
MM-GRINDER1T	RJH Finishing Gryphon Grinder with Extraction (3 phase)	*2,577.00
MM-GRINDER1S	RJH Finishing Gryphon Grinder with Extraction (1 phase)	*2,693.00

*A fitted Integral DC Braking system is available at an additional cost of £700. Although not a mandatory requirement, there is an increased demand from various H&S consultants who deem this necessary. This braking system is also available as a retrofit kit for existing machines in the field.

Accessories

MT-RJ-LGT1	Optional fitted LED light. <i>Must be fitted at time of purchase.</i>	290.00
MMP-GR-WH1	Grinding Wheel for Gryphon Grinder, 200 x 25 x 20 - 36 Grit	36.15
MMP-GR-WH2	Grinding Wheel for Gryphon Grinder, 200 x 25 x 20 - 80 Grit	36.15
MT-DRESSER1	Wheel Dresser for Gryphon Grinder	27.00
MT-BF-FILTER1	Dust Extraction Filter Bag for integrated extractor	52.00

RJH Finishing Deer & Antelope Bandfacers

Bench Mounted - Deer



RJH Bandfacers are suitable for wood, acrylic and metal, and have been carefully developed to provide a safe and reliable resource for schools. The machine features a quick-action adjustable table with protractor guide for accuracy. Particular attention has been given to noise reduction, ergonomic design and user-friendly features.

The Deer Bandfacer shares all the technical, operational and ergonomic features of its Antelope cousin but provides a machine-only version for customers to install onto side benching. Extraction will be required via free-standing LEV (see pages 181-182) or connection to a central system (see page 186). A footstop switch is provided for mounting as appropriate.

Specification (Bench Mounted)	
Work Table	278(W) x 226(D) x 300(H)mm
Belt Speed:	6.5m/sec
Belt Width:	150mm
Belt Drive Motor:	1 Phase: 0.75kW (1hp) 3 Phase: 1.5kW (2hp)
Weight:	77kg
Dimensions	565(W) x 615(D) x 580(H)mm
Power Requirements:	415V 1.5kW or 240V 0.75kW, Fused switch-disconnector
Warranty:	UK Mainland: 2 Years On-Site Elsewhere: 2 Years Return and Collect

Pedestal Mounted - Deer

This pedestal mounted version provides a solution where the bandfacer is to be connected to a suitable ducted extraction system (see pages 181-182).

The pedestal is supplied with a fully-wired foot-stop.



Specification (Pedestal Mounted)	
Work Table	278(W) x 226(D) x 1050(H)mm
Belt Speed:	6.5m/sec
Belt Width:	150mm
Belt Drive Motor:	1 Phase: 0.75kW (1hp) 3 Phase: 1.5kW (2hp)
Weight:	97kg
Dimensions	540(W) x 615(D) x 1345(H)mm
Power Requirements:	415V 1.5kW or 240V 0.75kW, Fused switch-disconnector
Warranty:	UK Mainland: 2 Years On-Site Elsewhere: 2 Years Return and Collect

With Stand/Extractor - Antelope



This fully-integrated solution provides the high-quality Deer bandfacing head on a robust steel base unit. The Antelope is assembled and wired to include everything needed to allow it to be sited almost anywhere given appropriate safety working area (SWA) requirements. The LEV system auto-runs with the bandfacer and waste is collected in a pull out tray. The steel cabinet includes a positive knee-stop and a shaker handle which is used to shake excess dust off the filter.

Specification (Integrated Stand/Extraction)	
Work Table:	278(W) x 226(D) x 1025(H)mm
Belt Speed:	6.5m/sec
Belt Width:	150mm
Belt Drive Motor:	1 Phase: 0.75kW (1hp) 3 Phase: 1.5kW (2hp)
Extraction Drawer Capacity:	8 litres
Extraction Motor:	0.55kW (0.74hp)
Weight:	135kg
Dimensions:	660(W) x 715(D) x 1305(H)mm
Power Requirements:	415V 2.1kW or 240V 1.3kW, Fused switch-disconnector
Warranty:	UK Mainland: 2 Years On-Site Elsewhere: 2 Years Return and Collect

Prices £*

*See Pricing Information on page 2

MM-BANDFACER1BFT	Deer AN150 V3B Bandfacer for Bench Mounting (3 phase) + Emergency Foot Stop	1,692.00
MM-BANDFACER1BFS	Deer AN150 V1B Bandfacer for Bench Mounting (1 phase) + Emergency Foot Stop	1,872.00
MM-BANDFACER1PT	Deer AN150 V3P Bandfacer with Pedestal (3 phase)	1,871.00
MM-BANDFACER1PS	Deer AN150 V1P Bandfacer with Pedestal (1 phase)	2,052.00
MM-BANDFACER1T	Antelope AN150 V3COB Bandfacer with Extractor (3 phase)	3,061.00
MM-BANDFACER1S	Antelope AN150 V1COB Bandfacer with Extractor (1 phase)	3,219.00

Accessories

MT-RJ-LGT1	Optional fitted LED light. <i>Must be fitted at time of purchase.</i>	290.00
MT-BF-BLT60	60 Grit Belt (1090x150)	11.70
MT-BF-BLT80	80 Grit Belt (1090x150)	11.25
MT-BF-BLT100	100 Grit Belt (1090x150)	11.10
MT-BF-BLT60-10	60 Grit Belt, Pack of 10 (1090x150)	78.00
MT-BF-BLT80-10	80 Grit Belt, Pack of 10 (1090x150)	73.00
MT-BF-BLT100-10	100 Grit Belt, Pack of 10 (1090x150)	72.00
MT-BF-FILTER1	Dust Extraction Filter Bag for integrated extractor	52.00

Polishers

Double Ended Polishers

RJH Finishing Chamois Polisher

Bench Mounted



The Chamois double-ended polisher is a quiet, smooth running machine with a long-standing reputation for reliability and longevity in educational establishments. The spindle is guarded by adjustable steel sleeves and safety is further ensured by steel guards and robust adjustable eye shields. These guards double as dust-capture hoods and have provision for duct connection.

The machine-only version is for customers who wish to install onto side benching. Extraction will be required via free-standing LEV (see pages 181-182). A footstop is provided for mounting as appropriate.

Specification (Bench Mounted)	
Spindle Speed:	1,500rpm
Max Mop Size:	200 x 25mm
Mop Drive Motor:	1 Phase: 0.70kW (0.94hp) 3 phase: 1.25kW (1.7hp)
Centre of Mop	150mm(H)
Weight:	40kg
Dimensions	1000(W) x 325(D) x 290(H)mm
Power Requirements:	415V 1.25kW or 240V 0.7kW, Fused switch-disconnector
Warranty:	UK Mainland: 2 Years On-Site Elsewhere: 2 Years Return and Collect

Pedestal Mounted

This pedestal mounted version provides a solution where the polisher is to be connected to LEV, see page 182.

The pedestal is supplied with a fully-wired foot-stop.



Specification (Pedestal Mounted)	
Spindle Speed:	1,500rpm
Max Mop Size:	200 x 25mm
Mop Drive Motor:	1 Phase: 0.70kW (0.94hp) 3 phase: 1.25kW (1.7hp)
Centre of Mop	925mm(H)
Weight:	64kg
Dimensions	1000(W) x 520(D) x 1050(H)mm
Power Requirements:	415V 1.25kW or 240V 0.7kW, Fused switch-disconnector
Warranty:	UK Mainland: 2 Years On-Site Elsewhere: 2 Years Return and Collect

With Integrated Stand/Extractor

This fully-integrated solution provides the high-quality Chamois polisher on a robust steel base unit. The machine is assembled and wired to make siting and connection as easy as possible. The LEV system auto-runs with the polisher and waste is collected in a pull out tray. The steel cabinet includes a positive knee-stop and a shaker handle which is used to shake excess dust off the filter.



Specification (Integrated Stand/Extraction)	
Spindle Speed:	1,500rpm
Max Mop Size:	200 x 25mm
Mop Drive Motor:	1 Phase: 0.70kW (0.94hp) 3 phase: 1.25kW (1.7hp)
Extraction Motor	0.55kW (0.74hp)
Extraction Drawer Capacity	8 litres
Centre of Mop	925mm(H)
Weight:	93kg
Dimensions	1035(W) x 650(D) x 1180(H)mm
Power Requirements:	415V 1.8kW or 240V 1.3kW, Fused switch-disconnector
Warranty:	UK Mainland: 2 Years On-Site Elsewhere: 2 Years Return and Collect

Prices £*

*See Pricing Information on page 2

MM-POLISHER3BFT	PL2001T Chamois Polisher for Bench Mounting (3 phase) + Emergency Foot Stop	*1,826.00
MM-POLISHER3BFS	PL2001S Chamois Polisher for Bench Mounting (1 phase) + Emergency Foot Stop	*1,950.00
MM-POLISHER3PT	PL2001TP Chamois with Pedestal (3 phase)	*1,914.00
MM-POLISHER3PS	PL2001SP Chamois with Pedestal (1 phase)	*2,052.00
MM-POLISHER3T	PL2001TE Chamois Polisher with Extractor (3 phase)	*2,779.00
MM-POLISHER3S	PL2001SE Chamois Polisher with Extractor (1 phase)	*2,963.00

*A fitted Integral DC Braking system is available at an additional cost of £700. Although not a mandatory requirement, there is an increased demand from various H&S consultants who deem this necessary. This braking system is also available as a retrofit kit for existing machines in the field.

Accessories

MT-RJ-LGT1	Optional fitted LED light. <i>Must be fitted at time of purchase.</i>	290.00
MMP-PO-MP1	Mop, 200 x 25, Stitched for Chamois Polisher	22.00
MMP-PO-MP2	Mop, 200 x 25, Loose for Chamois Polisher	21.00
MMP-PO-PK1	Finishing Kit for Aluminium. Contains 3 mops and 3 polishing compounds	POA
MMP-PO-PK2	Finishing Kit for Steel & Stainless Steel. Contains 3 mops and 3 polishing compounds.	POA
MMP-PO-PK3	Finishing Kit for Brass. Contains 2 mops and 2 polishing compounds.	POA
MMP-PO-PC1	Tripomax Super Polishing Compound (Bar 8" x 2" x 1.3/4")	POA
MMP-PO-PC2	Abramax Polishing Compound (Bar 8" x 2" x 1.3/4")	POA
MMP-PO-PC3	Maxfin Polishing Compound (Bar 8" x 2" x 1.3/4")	POA
MMP-PO-PC4	Chromax Super Polishing Compound (Bar 8" x 2" x 1.3/4")	POA
MT-BF-FILTER1	Dust Extraction Filter Bag for integrated extractor	52.00

Optimum S131GH / S181G Bandsaws



MM-BANDSAWMETALS

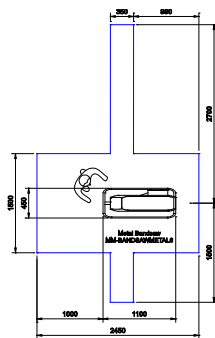
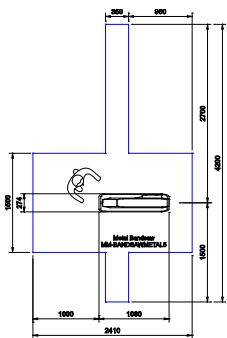


MM-BANDSAWMETAL6S

These sturdy bandsaws feature cast-iron construction and bearing-guided blades for rigidity and smooth running. Blade force is controlled by an adjustable hydraulic cylinder in both cases. Three cutting speeds will allow for rapid and accurate preparation of steel and non-ferrous stock. The lighter S131GH model will be ideal in multi-material workshops for one-off and small batch preparation in lighter materials. Angled cuts are achieved by swivelling the saw arch against a graduated scale. The more powerful and higher-capacity S181G model is ideal for regular use in an engineering workshop and features an in-built coolant system, geared speed change and angled cuts by adjusting the quick-action vice jaws.

N.B. Work supports (see SF-ROLLERSTAND3 in prices below) must be used for long pieces to stop tipping.

Specification	Optimum S131GH	Optimum S181G
Cutting Capacity:	128mm round 100 x 150mm rectangular	180mm round 180 x 240mm rectangular
Speed:	22, 31 & 55m/min	39, 66 & 82m/min
Motor:	0.25kW (0.34hp)	0.75Kw (1hp)
Weight:	78Kg	130Kg
Dimensions:	980(W) x 274(D) x 1060(H) mm	1275(W) x 450(D) x 1100(H) mm
Power Requirements:	240V 0.25kW, Fused switch-disconnector	240V 0.75kW, Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect	



See page 10 for drawing details.

Prices £*		*See Pricing Information on page 2
MM-BANDSAWMETALS	Optimum S131GH Metal Bandsaw (1 phase)	658.00
MM-BANDSAWMETAL6T	Optimum S181G Metal Bandsaw (3 Phase)	1,184.00
SF-ROLLERSTAND3	Height Adjustable Roller Stand (1000 x 440 x 530-800mm)	210.00
Spare Blade (one blade included with machine)		
MT-BM-BL10	10-14 Vari Tooth Blade Bimetal for S131G	20.00
MT-BM-BL1	5-8 Vari Tooth Blade Bimetal for S181GH	38.00
MT-BM-BL2	6-10 Vari Tooth Blade Bimetal for S181GH	38.00

KV40 Metal Cutting Vertical Bandsaw

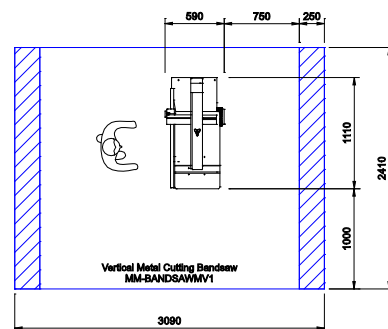


Emergency Foot Stop and Key Switch supplied as standard

A large capacity bandsaw with a powerful 1.5kW motor, this sturdy machine is capable of heavy cuts for prolonged periods. Two speeds, three types of available blade and 410mm throat capacity makes the KV40 a versatile resource for preparing a wide variety of stock - including thicker sheet material. The table inclines for cutting mitred edges and the machine is supplied with a mitre-fence for cross-cutting angles and mitred corners. Strips and repeat widths are quickly obtained by working off the adjustable fence. A useful feature is the built-in shear, welding, grinding and annealing facility for making-up or repairing blades in-house.

N.B. Work supports (see SF-ROLLERSTAND5 in prices below) must be used for long pieces to stop tipping.

Specification	
Table Size:	600(W)mm x 500(D)mm
Table Tilt:	0° - 15°
Throat Width:	410mm
Clearance Height:	310mm
Max. Blade Width:	16mm
Motor:	1.5kW (2hp)
Weight:	440kg
Dimensions:	1110(W) x 590(D)mm x 1950(H)mm
Power Requirements:	415V 1.5kW, Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect



See page 10 for drawing details.

Prices £*		*See Pricing Information on page 2
MM-BANDSAWMV1KF	KV40 Metal Cutting Vertical Bandsaw + Keyswitch + Emergency Foot Stop	4,798.00
SF-ROLLERSTAND5	Height Adjustable Roller Stand (1000 x 440 x 650-950mm)	210.00
Spare Blade (one blade included with machine)		
MT-BM-BL3	6/10 Vari Tooth Spare Blade for MM-BANDSAWM1	44.00
MT-BM-BL5	10/14 Vari Tool Spare Black for MM-BANDSAWM1	44.00

Metal Cut-Off Saws / Metal Lathes

Metal Cut-Off Saw and Metal Lathes

ECS 250 / 315 Metal Cut-Off Saws



An ideal solution where preparation of steel and non-ferrous stock is regularly required but space is limited. The ECS 250 produces clean, accurate cuts in heavier bar stock or tube, and has surprising capacity for a machine of this type. A coolant supply system is built-in and the 3ph model has two speeds for greater versatility. The machine is easy to use and features a quick action vice mechanism - ideal for repeat work. Angles and mitred cuts are quickly set up using the swivelling headstock with pre-set detents for 45 and 90 degrees. This is a heavy, precision-built machine for long life and smooth vibration-free running.

N.B. Work supports (see SF-ROLLERSTAND5 in prices below) must be used for long pieces to stop tipping.

Specification	ECS250	ECS315
Blade Diameter:	250mm	315mm
Cut Capacity Solid Rod:	30mm Diameter	50mm Diameter
Cut Capacity Round Tube:	75mm Diameter	100mm Diameter
Cut Capacity Square Tube:	65 x 65mm	82 x 82mm
Cut Capacity Rectangular Tube:	90 x 50mm	110 x 70mm
Motor:	0.75kW (1hp)	1.50kW (2hp)
Motor Speed:	45rpm (1ph), 45/90rpm (3ph) - 2 speed	44/88rpm - 2 speed
Coolant Pump:	90W	
Coolant Tank:	2 Litres	5 Litres
Weight:	131kg	175kg
Dimensions:	960(W) x 940(D) x 1570(H)mm	1020(W) x 990(D) x 1830(H)mm
Power Requirements:	240V 0.75kW or 415V 0.75kW Fused switch-disconnector	415V 1.50kW Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect	

Standard Accessories:

Machine Stand, Coolant System, High Speed Blade, Quick Action Vice.

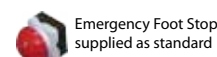
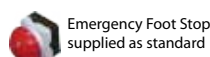
Prices £*		
*See Pricing Information on page 2		
MM-CIRCSAWM1KFT	ECS 250 Metal Cutting Circular Saw (3 phase) + Keyswitch + Emergency Foot Stop	1,573.00
MM-CIRCSAWM1KFS	ECS 250 Metal Cutting Circular Saw (1 phase) + Keyswitch + Emergency Foot Stop	1,573.00
MM-CIRCSAWM2KF	ECS 315 Metal Cutting Circular Saw (3 phase) + Keyswitch + Emergency Foot Stop	1,680.00
Spare Blades (one blade included with machine)		
MT-BM-BL6	250mm Dia. Spare Blade for MM-CIRCSAWM1	70.00
MT-BM-BL7	315mm Dia. Spare Blade for MM-CIRCSAWM2	103.00
SF-ROLLERSTAND5	Height Adjustable Roller Stand. (1000 x 400 x 650-950mm)	210.00

TU2304V/TU2406V Variable Speed Metal Lathes



MM-METALLATHE44

MM-METALLATHE43



These light duty lathes will be ideal in a multi-materials workshop where metal-turning needs to be among the many facilities available for students. Several of these would provide a cost-effective, space-saving solution in a training environment where demand is high but space is limited. Compact and generously equipped, they provide all the key capabilities needed for surfacing, facing and screw-cutting in steel and non-ferrous alloys. Both machines include all necessary guards, stops and interlocks to make them suitable for educational use.

Specification	TU2304V	TU2406V
Distance Between Centres:	450mm	550mm
Swing Over Bed:	230mm	250mm
Spindle Speeds:	150-2200rpm	150-2500rpm
Motor:	0.75kW	1.1kW
Weight:	104Kg	125Kg
Dimensions:	960(W) x 580(D) x 510(H)mm	1310(W) x 520(D) x 560(H)mm
Power Requirements:	240V 0.75kW, Fused switch-disconnector	240V 1.1kW, Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect	

Standard Accessories:

Interlocked Chuck Guard, Leadscrew Guard, Machine Tray, Rear Splash Guard, Change Gear Kit, 3-Jaw Chuck - 100mm, MT2 Steady Centre, MT3 Steady Centre

Prices £*		
*See Pricing Information on page 2		
MM-METALLATHE44F	TU2304V Variable Speed Metal Lathe (1 phase) 230 x 450mm c/w Emergency Footstop and fitted leadscrew cover	1,677.00
MM-METALLATHE43F	TU2406V Variable Speed Metal Lathe (1 phase) 250 x 550mm c/w Emergency Footstop and fitted leadscrew cover	1,892.00
Recommended Tooling Pack This Tooling Pack provides a useful selection of tools and accessories to "get you going".		
MT-LM-PK8	Tooling Pack for MM-METALLATHE43/44. (Includes Quick Change Toolpost; Live Centre; Keyless Drill Chuck and Arbor; Indexable tools 12mm - 60deg RH, 60deg LH, vee, boring + blade-type parting tool)	509.00
MT-LM-TTS50	External Threading Tool 12mm	25.50
Recommended Extras		
MT-METALLATHE43C	2 Axes Digital Read Out fitted to MM-METALLATHE43/44	*1,286.00
MT-METALLATHE43A	Stand for MM-METALLATHE43/44	318.00

* Must be fitted at time of purchase

Optimum 630E/920E/1000E Metal Lathes



These heavy duty, well engineered, quality machines will more than meet all the turning needs for Design and Technology work at KS3, A level, and beyond. All machines feature heavily ribbed beds with hardened and ground vee guide ways. They are supplied with power feed on both axes, coolant and a large brake/stop pedal.

The education ('E') versions of these machines, supplied by TechSoft, include all necessary guards, stops and interlocks to make them suitable for educational use.

Specification	630E	920E	1000E
Distance Between Centres:	630mm	920mm	1000mm
Swing Over Bed:	320mm		330mm
Digital Readout:	2 Axis		
Coolant System:	Inbuilt		
Spindle Speeds:	65-1800rpm		70-2000rpm
Powerfeed:	X and Z axis		
Motor:	1.1kW (1.5hp)		1.5kW (2hp)
Weight:	495kg	540kg	600kg
Dimensions:	1390(W) x 760(D) x 1420(H)mm	1680(W) x 760(D) x 1420(H)mm	1930(W) x 750(D) x 1510(H)mm
Power Requirements:	415V 1.1kW or 240V 1.1kW Fused switch-disconnector		415V 1.5kW or 240V 1.5kW, Fs-d
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect		

Standard Accessories:

2 Axis Digital Readout, In-built Coolant, Machine Light, Interlocked Chuck Guard, Leadscrew Guard, 3-Jaw Chuck, 4-Jaw Chuck, 250mm Faceplate, Fixed Steady, Travelling Steady, MT3 Dead Centre, MT5-MT3 Sleeve.

Prices £*	*See Pricing Information on page 2	
MM-METALLATHE37T	Optimum Lathe 630E (3 phase)	3,990.00
MM-METALLATHE37S	Optimum Lathe 630E (1 phase)	3,990.00
MM-METALLATHE15T	Optimum Lathe 920E (3 phase)	4,990.00
MM-METALLATHE15S	Optimum Lathe 920E (1 phase)	4,190.00
MM-METALLATHE16T	Optimum Lathe 1000E (3 phase)	6,290.00
MM-METALLATHE16S	Optimum Lathe 1000E (1 phase)	4,690.00

Recommended Tooling Pack

This Tooling Pack provides a useful selection of tools and accessories to "get you going".

MT-LM-PK6	Tooling Pack for MM-METALLATHE15/16/37 (Includes quick change toolpost with 4 standard, 1 vee and 1 morse taper tool holder, live centre, keyless drill chuck and arbor, indexable tools 12mm - 60 deg RH, 60 deg LH, vee, boring + blade-type parting tool)	714.00
MT-LM-TTS50	External Threading Tool 12mm	25.50

Recommended Extras

MT-LM-TTA22	Taper Turning Attachment for 920E	*592.00
MT-LM-TTA21	Taper Turning Attachment for 1000E	*592.00

* Must be fitted at time of purchase

Optimum 1000PE Metal Lathe



This industrial-quality, large capacity lathe is designed for heavy use and is ideal for colleges and schools with an Engineering specialism where precision work with high throughput is a daily requirement. The lathe is equipped with a powerful two stage 1.5/2.4 kW motor and a robust mechanical gearbox offering a stepped speed range from 45 to 1800rpm. The D1000PE is supplied with power feed on both axes, coolant and a large brake/stop pedal.

The education ('E') versions of these machines, supplied by TechSoft, include all necessary guards, stops and interlocks to make them suitable for educational use.

Specification	1000PE
Distance Between Centres:	1000mm
Swing Over Bed:	356mm
Digital Readout:	2 Axis
Coolant System:	Inbuilt
Spindle Speed:	45-1800rpm
Powerfeed:	X and Z Axis
Motor:	2.4kW (3.2hp)
Weight:	880kg
Dimensions:	1930(W) x 760(D) x 1580(H)mm
Power Requirements:	415V 2.4kW, Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Standard Accessories:

2 Axis Digital Readout, In-built Coolant, Machine Light, Interlocked Chuck Guard, Leadscrew Guard, 3-Jaw Chuck, 4-Jaw Chuck, 250mm Faceplate, Fixed Steady, Travelling Steady, MT3 Dead Centre, MT5-MT3 Sleeve.

Prices £*	*See Pricing Information on page 2	
MM-METALLATHE42	Optimum Lathe 1000PE (3 phase)	7,490.00

Recommended Tooling Pack

This Tooling Pack provides a useful selection of tools and accessories to "get you going".

MT-LM-PK7	Tooling Pack for MM-METALLATHE42 (Includes quick change toolpost with 4 standard, 1 vee and 1 morse taper tool holder, live centre, keyless drill chuck and arbor, indexable tools 16mm - 60 deg RH, 60 deg LH, vee, boring + blade-type parting tool)	775.00
MT-LM-TTS51	External Threading Tool 16mm	30.50

Recommended Extras

MT-LM-TTA23	Taper Turning Attachment for 1000PE	*592.00
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* Must be fitted at time of purchase

Optimum BF20/L Milling/Drilling Machines



Shown on optional stand



Emergency Foot Stop supplied as standard

Well thought out and well engineered compact manual milling machines for bench-mounting or for use as floor-standing models with the optional base cabinets. These are sturdy machines and are easily capable of heavy cuts to a precision that you would not expect from a machine this size. Electronic speed control and a digital readout on the quill make for convenient operation. These machines are an excellent choice for many schools.

The education ('E') versions of these machines, supplied by TechSoft, include all necessary guards, stops and interlocks to make them suitable for educational use.

Specification	BF20 Vario	BF20L Vario
Axis Travel:	280 x 175 x 280mm	480 x 175 x 280mm
Table Size:	500 x 180mm	700 x 180mm
Spindle Speeds:	100 - 3000rpm	100 - 3000rpm
Motor:	0.85kW (1.1hp)	0.85kW (1.1hp)
Weight:	103kg	115kg
Dimensions:	670(W) x 550(D) x 860(H)mm	870(W) x 550(D) x 860(H)mm
Power Requirements:	240V 0.85kW Fused switch-disconnector	240V 0.85kW Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect	

Standard Accessories:

Digital Quill Readout, Interlocked Cutter Guard, Work Table Illumination

Prices £*		
*See Pricing Information on page 2		
MM-METALMILL10F	Optimum BF20 Vario Bench Milling/Drilling Machine (1 phase) + Emergency Footstop	1,361.00
MM-METALMILL11F	Optimum BF20L Variable Speed Bench Milling/Drilling Machine (1 phase) + Emergency Footstop	1,480.00
MM-METALMILL10A	Stand for MM-METALMILL10/11 c/w Chip Tray	269.00
Recommended Tooling Pack: This Tooling Pack provides a useful selection of tools and accessories to "get you going".		
MT-MM-PK16	Tooling Pack for MM-METALMILL10/11 (Includes swivel base 100mm milling vice, collet set ER-25 2MT with 6 collets, set of 10 end mills and 10 slot drills, keyless drill chuck and arbor)	329.00
Recommended Extras:		
MT-MM-FCS11	Fly Cutter Set (1/2" Diameter 19,28, 38mm)	21.00
MT-MM-BTS11	Boring Tool Set (MT2/M10, inc. boring head & 9 tools)	55.00
MT-MM-CK11	54 piece Clamp Kit (12mm Tee Slot Size, M10 Thread)	42.00
MT-MM-RT11	Rotary Table 100mm	204.00
MT-MM-AP11	Angle Plate 3"	22.00
MT-MM-AP12	Angle Plate 6"	41.00

Optimum BF30/46 Milling/Drilling Machine



Shown on optional stand

Emergency Foot Stop supplied as standard

These rigidly constructed precision machines have some very useful features not often found on machines in this price bracket. The electronic variable speed offers an unusually wide speed range. They also have a special "Auto" mode to automatically stop and start the spindle when doing operations such as repeat drilling, and a "Threading" mode reverses automatically at a pre-set depth. Other features include a digital Z axis spindle readout and a segmented stainless steel column guard to protect the column bedways. These really are well thought out and versatile machines.

The education ('E') versions of these machines, supplied by TechSoft, include all necessary guards, stops and interlocks to make them suitable for educational use.

Specification	BF30 Vario	BF46 Vario
Axis Travel:	450 x 200 x 470mm	500 x 250 x 470mm
Table Size:	750 x 210mm	850 x 240mm
Spindle Speeds:	80 - 3100rpm	155 - 3000rpm
Motor:	1.5kW (2hp)	2.2kW
Weight:	265kg	480kg
Dimensions:	1073(W) x 792(D) x 1245(H)mm	1230(W) x 950(D) x 1520(H)mm
Power Requirements:	240V 1.5kW Fused switch-disconnector	240V 2.2kW Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect	


Standard Accessories:

Digital Quill Readout, Interlocked Cutter Guard

Prices £*		
*See Pricing Information on page 2		
MM-METALMILL23F	Optimum BF30 Vario Bench Milling/Drilling Machine (1 phase) + Emergency Footstop	3,232.00
MM-METALMILL23A	Stand for MM-METALMILL23 c/w Chip Tray	533.00
MM-METALMILL30F	Optimum BF46 Vario Bench Milling/Drilling Machine (1 Phase) + Emergency Footstop	4,415.00
MM-METALMILL30A	Stand for MM-METALMILL30 c/w Chip Tray	850.00
Recommended Tooling Pack: This Tooling Pack provides a useful selection of tools and accessories to "get you going".		
MT-MM-PK18	Tooling Pack for MM-METALMILL23 (Includes swivel base 125mm milling vice, collet set ER-32 3MT with 6 collets, set of 10 end mills and 10 slot drills, keyless drill chuck and arbor)	376.00
Recommended Extras:		
MT-MM-TG41	Table Mounted Cutter Guard	195.00
MT-MM-FCS11	Fly Cutter Set (1/2" Diameter 19, 28, 38mm)	21.00
MT-MM-BTS11	Boring Tool Set (MT2/M10, inc. boring head & 9 tools)	55.00
MT-MM-CK11	54 Piece Clamp Kit (12mm Tee Slot Size, M10 Thread)	42.00
MT-MM-RT11	Rotary Table 100mm	204.00
MT-MM-AP11	Angle Plate 3"	22.00
MT-MM-AP12	Angle Plate 6"	41.00

ETM-1VS Turret Mill



 Emergency Foot Stop supplied as standard

This is a more compact version of the industry standard style turret mill. Despite its smaller dimensions it is still a rigid and powerful heavy duty machine. It is made with generous size Meehanite castings and is capable of serious metal cutting to high precision. The working area is more than enough for most applications and the 2.2kW (3hp) motor will cope with large cutters and high metal removal rates. The centralised one shot lubrication system ensures a long life, and the 2 axes digital readout, the longitudinal power feed, and the interlocked cutter guard ensures safe operation and ease of use. This machine will be ideal where a smaller footprint machine is required due to space restrictions. Due to its smaller size it is also more "child friendly" than some bigger machines.

The education ('E') versions of these machines, supplied by TechSoft, include all necessary guards, stops and interlocks to make them suitable for educational use.

Specification	
Axis Travel	550 x 240 x 350mm
Table Size	914 x 200mm
Spindle Speeds:	60 - 4,200rpm (variable)
Digital Readout:	2 Axis
Coolant System:	Inbuilt
Motor:	2.2kW (3hp)
Weight:	900kg
Dimensions:	1400(W) x 1150(D) x 1950(H)mm
Power Requirements:	415V 2.2kW, Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect


Standard Accessories:

2 Axis Digital Readout, In-built Coolant System, X Axis Power Feed, Interlocked Cutter Guard, One Shot Central Lubrication System, Machine Light

Prices £*		*See Pricing Information on page 2
MM-METALMILL26F	ETM-1VS Variable Speed Turret Mill (3 phase) + Emergency Footstop	6,081.00
Recommended Tooling Pack This Tooling Pack provides a useful selection of tools and accessories to "get you going".		
MT-MM-PK17	Tooling Pack for MM-METALMILL26 (Includes swivel base 150mm machine vice, collet set ER-32 R8 with 6 collets, set of 10 end mills and 10 slot drills, keyless drill chuck and arbor)	414.00
Recommended Extras		
MT-MM-HA21	Horizontal Mill Attachment R8	484.00
MT-MM-TG41	Table Mounted Cutter Guard	195.00
MT-MM-FCS12	Fly Cutter Set (R8, Thread 7/16", Diameter 2.5")	25.00
MT-MM-BTS13	Boring Tool Set (R8, 7/16", inc. boring head & 9 tools)	69.00
MT-MM-CK14	54 piece Clamp Kit (16mm Tee Slot Size, 1/2" Thread)	44.00
MT-MM-RT12	Rotary Table 150mm	306.00
MT-MM-AP12	Angle Plate 6"	41.00
MT-MM-AP13	Angle Plate 9"	109.00
MT-MM-AP14	Angle Plate 12"	199.00
MT-MM-PP11	Precision Parallels (10 pairs)	40.00

ETM-2VS/3VS Turret Mill



 Emergency Foot Stop supplied as standard

This industry standard style of full size turret mill comes complete with all the bells and whistles. A huge table size, 3 axis digital readout, power feed to ALL three axes, 3hp variable speed head, power feed to the quill, built-in coolant, etc. With all this capability, there is no compromise on quality as the machine is precision manufactured using meehanite castings and has hardened bed ways for much longer service life. This outstanding vertical milling machine will undoubtedly provide everything that a school or college could reasonably ask for at a very competitive price.

The education ('E') versions of these machines, supplied by TechSoft, include all necessary guards, stops and interlocks to make them suitable for educational use.

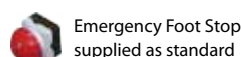
Specification	ETM-2VS	ETM-3VS
Axis Travel:	838 x 300 x 400mm	850 x 420 x 420mm
Table Size:	1245 x 228mm	1370 x 254mm
Spindle Speeds:	70-4,200rpm (variable)	
Digital Readout:	3 Axis	
Coolant System	Inbuilt	
Motor:	2.2kW (3hp)	
Weight:	1,100kg	1,400kg
Dimensions:	1700(W) x 1600(D) x 2130(H) mm	1800(W) x 2010(D) x 2170(H)mm
Power Requirements:	415V 2.2kW, Fused switch-disconnector	
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect	

Standard Accessories:

3 Axis Digital Readout, In-built Coolant System, X, Y Axis Power Feed, Z Axis Power Feed (ETM-2VS), Electric Rise and Fall on Z Axis (ETM-3VS), Interlocked Cutter Guard, One Shot Central Lubrication System, Machine Light

Prices £*		*See Pricing Information on page 2
MM-METALMILL12F	ETM-2VS Variable Speed Turret Mill (3 phase) + Emergency Footstop	7,425.00
MM-METALMILL25F	ETM-3VS Variable Speed Turret Mill (3 phase) + Emergency Footstop	7,855.00
Recommended Tooling Pack This Tooling Pack provides a useful selection of tools and accessories to "get you going".		
MT-MM-PK17	Tooling Pack for MM-METALMILL12/25 (Includes swivel base 150mm machine vice, collet set ER-32 R8 with 6 collets, set of 10 end mills and 10 slot drills, keyless drill chuck and arbor)	296.00
Recommended Extras		
MT-MM-HA21	Horizontal Mill Attachment R8 for MM-METALMILL12	484.00
MT-MM-HA22	Horizontal Mill Attachment R8 for MM-METALMILL25	484.00
MT-MM-TG41	Table Mounted Cutter Guard	195.00
MT-MM-FCS12	Fly Cutter Set (R8, Thread 7/16", Diameter 2.5")	25.00
MT-MM-BTS13	Boring Tool Set (R8, 7/16", inc. boring head & 9 tools)	69.00
MT-MM-CK14	54 piece Clamp Kit (16mm Tee Slot Size, 1/2" Thread)	44.00
MT-MM-RT12	Rotary Table 150mm	306.00
MT-MM-AP12	Angle Plate 6"	41.00
MT-MM-AP13	Angle Plate 9"	109.00
MT-MM-AP14	Angle Plate 12"	199.00
MT-MM-PP11	Precision Parallels (10 pairs)	40.00

Super Lux E Milling/Drilling Machine



Emergency Foot Stop supplied as standard

The Super Lux E is a precision, heavily-engineered machine designed for serious manual milling, all in a compact envelope. The main spindle runs from a fully oil-immersed geared head with a robust gearbox providing a stepped speed range of 95-1600rpm. A substantial machine column with dovetailed ways provide for rigid construction and minimum vibration. Head elevation features power feed, and digital readout is provided on two axes. This versatile compact machine provides an ideal solution for schools and colleges who routinely need serious milling capability at an attractive price.

The education ('E') versions of these machines, supplied by TechSoft, include all necessary guards, stops and interlocks to make them suitable for educational use.

Specification	
Axis Travel:	530 x 200 x 475mm
Table Size:	820 x 240mm
Spindle Speeds:	6 speeds, 95-1600rpm
Digital Readout:	2 Axis
Coolant System:	Independent Optional Extra
Motor:	0.75kW (1hp)
Weight:	278kg
Dimensions:	1120(W) x 1040(D) x 2100(H)mm
Power Requirements:	240V 0.75kW, Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Standard Accessories:

Machine Stand, 2 Axis Digital Readout, Interlocked Cutter Guard, Keyless Drill Chuck and Arbor, Face Milling Cutter

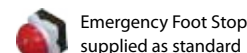
Prices £*		*See Pricing Information on page 2
MM-METALMILL15F	Super LUX Metal Mill (1 phase) + Emergency Footstop	2,188.00
Recommended Tooling Pack: This Tooling Pack provides a useful selection of tools and accessories to "get you going".		
MT-MM-PK12	Tooling Pack for MM-METALMILL15 (Includes swivel base 125mm machine vice, collet set ER-25 3MT with 6 collets, set of 10 end mills and 10 slot drills)	332.00
Recommended Extras:		
MT-MM-PP11	X Axis Power Feed and Transformer	*485.00
MT-LM-CL11	Independent Coolant System (350x340x290mm, 240V, 6litres/min)	96.00
MT-MM-TG41	Table Mounted Cutter Guard	195.00
MT-MM-FCS11	Fly Cutter Set (1/2", Diameter 19,28,38mm)	21.00
MT-MM-BTS12	Boring Tool Set (MT3/MT2, inc. head & 9 tools)	55.00
MT-MM-CK13	54 piece Clamp Kit (14mm Tee Slot Size, M12 Thread)	44.00
MT-MM-RT12	Rotary Table 150mm	306.00
MT-MM-AP11	Angle Plate 3"	22.00
MT-MM-AP12	Angle Plate 6"	41.00
MT-MM-PP11	Precision Parallels (10 pairs)	40.00

* Must be fitted at time of purchase

626E Turret Mill



The education ('E') versions of these machines, supplied by TechSoft, include all necessary guards, stops and interlocks to make them suitable for educational use.



Emergency Foot Stop supplied as standard

This compact machine represents a step into turret-mill capability. The tilting/rotating head, full 330mm knee travel and 80mm quill travel gives incredible versatility and capacity. The column construction and rigid castings combine to make for a machine capable of heavy cuts with minimal vibration. The R8 industry collet spindle provides access to a huge range of industry standard tooling. For most schools this machine will be a great "do-it-all" milling workhorse.

Specification	
Axis Travel:	380 x 135 x 330mm
Table Size:	745 x 156mm
Digital Readout:	Optional Extra
Coolant System:	Independent Optional Extra
Spindle Speeds:	9 speeds, 190-2100rpm
Motor:	1.1kW (1.5hp)
Weight:	410kg
Dimensions:	1085(W) x 990(D) x 1710(H)mm
Power Requirements:	415V 1.1kW or 240V 1.1kW, Fused switch-disconnector
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Standard Accessories:

Machine Stand, Machine Work Light, Central Lubrication System, Table Mounted Cutter Guard

Prices £*		*See Pricing Information on page 2
MM-METALMILL16GFT	626 Turret Mill (3 phase) with stand + Table Mounted Guard + Emergency Footstop	2,550.00
MM-METALMILL16GFS	626 Turret Mill (1 phase) with stand + Table Mounted Guard + Emergency Footstop	2,550.00
Recommended Tooling Pack: This Tooling Pack provides a useful selection of tools and accessories to "get you going".		
MT-MM-PK13	Tooling Pack for MM-METALMILL16 (Includes swivel base 125mm machine vice, collet set ER-32, R8 with 6 collets, set of 10 end mills, 10 slot drills, keyless drill chuck and arbor)	384.00
Recommended Extras:		
MM-METALMILL16A	2-Axis Digital Readout	*560.00
MM-METALMILL16B	X-Axis Power Feed	*505.00
MM-METALMILL16C	2-Axis Digital Readout & X-Axis Power Feed	*1,060.00
MT-LM-CL12	Independent Coolant System (240V, 20 litres)	236.00
MT-LM-CL13	Independent Coolant System (415V, 20 litres)	236.00
MT-MM-FCS12	Fly Cutter Set (R8, Thread 7/16", Diameter 2.5")	25.00
MT-MM-BTS13	Boring Tool Set (R8, 7/16", inc. head & 9 tools)	69.00
MT-MM-CK13	54 piece Clamp Kit (14mm Tee Slot Size)	44.00
MT-MM-RT12	Rotary Table 150mm	306.00
MT-MM-AP12	Angle Plate 6"	41.00
MT-MM-AP13	Angle Plate 9"	109.00
MT-MM-PP11	Precision Parallels (10 pairs)	40.00

* Must be fitted at time of purchase

Metal Working Machines

Sheet Metal Workers and Shears

Opti SAR 1000



MM-METALSHEET7

MM-METALSHEET7S

This sturdy multi-function machine features all steel construction with high-grade steel shearing blades for clean, burr-free edges. Sheet metal is folded neatly using a 7-segment bar that allows adjacent edges to meet. The fully adjustable three-roller system means cylindrical forms are easy to create and gives reliable repeat accuracy. Adjustable stops, a large working table and an extendable support arm for long work make this versatile tool a joy to use.

Specifications	
Rolling	
Maximum Material Width:	1016mm
Minimum Roll Diameter:	42mm
Maximum Roll Diameter:	Unlimited
Max. Thickness - Steel	1mm
Max. Thickness - Stainless Steel	1mm
Max. Thickness - Alu./Copper	2mm
Max. Thickness - Brass	1mm
Folding	
Maximum Material Width:	1016mm
Maximum Plate Thickness:	2.5mm
Max. Thickness - Steel:	1mm
Max. Thickness - Alu./Copper:	2mm
No. of Removable Segments:	7
Cutting	
Maximum Material Width:	1016mm
Max. Thickness - Steel:	1mm
Max. Thickness - Alu./Copper:	1mm
Dimensions and Weight	
Weight:	280kg
Dimensions:	1340(W) x 460(D) x 620(H)mm
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £*		
*See Pricing Information on page 2		
MM-METALSHEET7	Opti SAR 1000 Sheet Metal Worker (3 in 1 machine - guillotine, fold and roll)	1,817.00
MM-METALSHEET7S	Stand for Opti SAR 1000	377.00

Universal Sheet Metal Machine



Cut fold and roll in one machine. These machines have become very popular in recent years due to their versatility and low cost. They have the ability to shear steel sheet up to 0.6mm, and bend or roll steel sheet up to 1mm. All operations are performed by one handle at the side of the machine. The folder has removable fingers of different widths to accommodate a wide range of sizes.

Specifications	305mm	610mm	760mm
Bed Width:	305mm	610mm	760mm
Shear Thickness (steel):	0.6mm		
Bending Thickness:	1.0mm		
Bending Angle:	90°		
Min Rolling Diameter:	39mm		
Weight:	45kg	100kg	120kg
Dimensions:	480(W) x 290(D) x 400(H)mm	840(W) x 360(D) x 535(H)mm	1020(W) x 390(D) x 600(H)mm
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect		

Prices £*		
*See Pricing Information on page 2		
MM-METALSHEET2	305mm Sheet Metal Worker	245.00
MM-METALSHEET3	610mm Sheet Metal Worker	430.00
MM-METALSHEET4	760mm Sheet Metal Worker	545.00

Bench Shears



These traditional metal cutting guillotines are ideal for quickly cutting through sheet metal and shearing through rods, studding, etc.

N.B. For safety a locking kit must be fitted when not in use (available below).

Specifications	HS-5	HS-6	HS-8	HS-10	HS-12
Length of Blade:	125mm	150mm	200mm	250mm	300mm
Max Cut Flat Steel:	6mm				
Max Cut Round Steel:	11mm		13mm		
Weight:	12kg	14kg	18kg	23kg	28kg
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect				

Prices £*		
*See Pricing Information on page 2		
MM-METALSHEAR1	125mm Bench Shear	60.00
MM-METALSHEAR2	150mm Bench Shear	69.00
MM-METALSHEAR3	200mm Bench Shear	81.00
MM-METALSHEAR4	250mm Bench Shear	92.00
MM-METALSHEAR5	300mm Bench Shear	126.00
MT-MS-SAF1	Safety Locking Kit for Bench Shears	19.95

Metal Working Machines

Guillotines and Box Folders

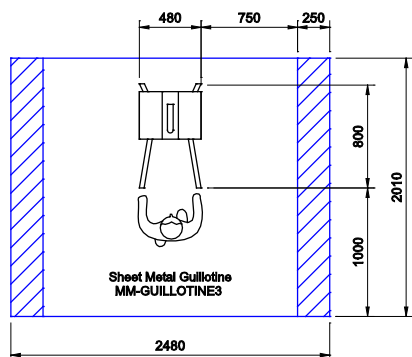
Gabro 2M2/3M2 Guillotines



Conventional guillotines have a scissor action which distorts at least one of the cut edges, but the Gabro designed guillotines cut out a thin strip of metal leaving both edges undistorted and free from sharp burrs. The Gabro guillotines also work much better than a conventional guillotine for a range of other materials such as plastic sheet, hardboard and thin MDF, laminates, etc. They come complete with cutting guides, angle guide and backstop for easy setup and for repetition work. Available as either bench mounted or with floor stands, there are two model sizes available, the 2M2 and the 3M2. The Gabro guillotines are ideal for educational use.

N.B. For safety a locking kit must be fitted when not in use (available below).

Specifications	2M2	3M2
Max Capacity Mild Steel: Non Ferrous:	1.6mm 3.2mm	3.2mm 4.0mm
Blade Thickness:	3.3mm	4.5mm
Max. Cut per Stroke:	70mm	108mm
Table Size:	480 x 370mm	860 x 560mm
Weight Machine Only: On Stand:	12kg 21kg	46kg 67kg
Dimensions Machine Only: On Stand:	480(W) x 370(D) x 202-809(H)mm 480(W) x 810(D) x 1012-1619(H)mm	860(W) x 560(D) x 230-1140(H)mm 890(W) x 970(D) x 1040-1950(H)mm
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect	



See page 10 for drawing details.

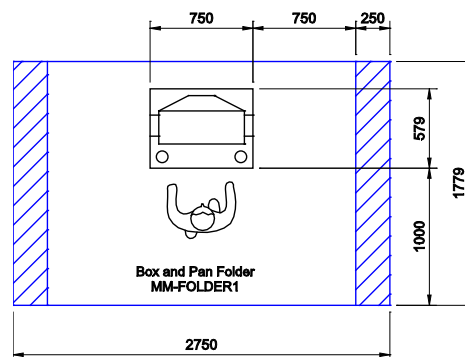
Prices £*		*See Pricing Information on page 2
MM-GUILLOTINE3	Gabro Model 2M2 Guillotine	599.00
MM-GUILLOTINE3A	Stand for Gabro 2M2 Guillotine	125.00
MM-GUILLOTINE1	Gabro Model 3M2 Guillotine	1,065.00
MM-GUILLOTINE1A	Stand for Gabro 3M2 Guillotine	199.00
MT-MS-SAF2	Safety Locking Kit for Guillotines	19.95

Gabro BF620-2/BF1000 Box Folders



Gabro folders are extremely versatile machines - not only do they tackle straight forward bends with ease, but they can also fold up trays, boxes, pans, lids, etc. It is even possible to fold up boxes and pans with sloped sides. The machines use a clamp bar system and brackets, and channel sections can be bent right around the bar to form tubes. These are well thought out machines, ideal for all sheet metalwork, and ideal for educational use. The BF620-2 can be bench or stand mounted, the BF 1000 comes complete with stand.

Specification	BF 620-2	BF 1000
Max Length of Bend 1.6 Steel: 2.0 Steel: 3.2 Steel:	620mm 300mm 100mm	1000mm 500mm 100mm
Max. Box Size:	250 x 250 x 180mm	1000 x 570 x 215mm
Weight Machine Only: With Stand:	95kg 109kg	Not Applicable 143kg
Dimensions Machine Only: With Stand:	750(W) x 579(D) x 546(H)mm 750(W) x 579(D) x 1283(H)mm	Not Applicable 1340(W) x 700(D) x 1400(H)mm
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect	



See page 10 for drawing details.

Prices £*		*See Pricing Information on page 2
MM-FOLDER1	Gabro BF620-2 Box and Pan Folder	1,268.00
MM-FOLDER1A	Floor Stand & Tray for Gabro BF620-2	165.00
MM-FOLDER3	Gabro BF1000 Box and Pan Folder (includes stand)	1,650.00

User Friendly, Low Cost, Low Temperature Casting



What is the LT1?

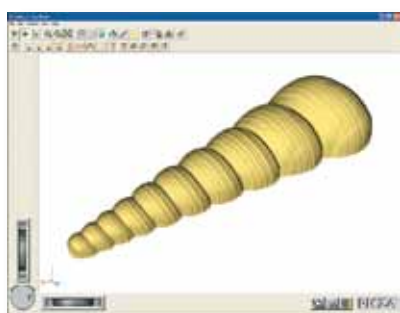
The LT1 Low Temperature Casting System is a cost effective and safe method to cast Lead Free Metal and MCF Low Melting Point Alloy in a standard classroom environment.

Why Casting?

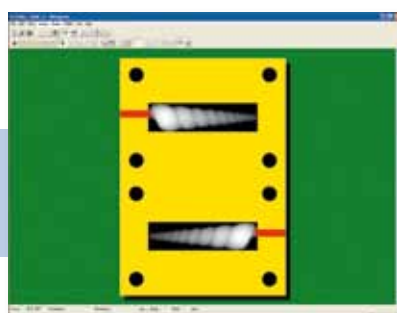
Creating a product from a molten material is a magical process. However, due to a lack of hot metal facilities, a lack of expertise, and or concerns over Health and Safety, many teachers are put off incorporating it into their lessons. Flamefast have always been at the forefront of hot metal equipment and so it should be no surprise that they have created a product that answers this issue.

How does it work?

The LT1 is simple, easy and safe to use. It only requires a standard 240V 13A socket and does not need any extraction. The Lead Free Metal (usually Pewter) is added to the internal melting pot through a swivel lid, on top of the unit. Once the LT1 has been switched on it only takes about 15 minutes to get up to temperature, whilst the unique cooling system keeps the entire case cold to touch. Place the mould into the special pouring trough and insert it into the unit so that the approach hole of the mould is under the pouring spout. Gently depress the pouring lever until the approach hole is full of metal and then carefully remove the pouring trough. When the metal in the approach hole has visibly set, the mould can be removed from the pouring trough, and after a couple of minutes the two halves of the mould can be separated.



Shell scanned on a RotoCAMM MDX-40AE



Mould designed in 3D Engrave



Mould previewed in Virtual Modeler

How do I create a mould?

With CAD/CAM, students have the ability to design and manufacture accurate and detailed products. Whether the mould is designed with 2D Design, 3D Engrave, SolidWorks, etc., your pupils can produce either simple or complex designs. Once designed the mould can be machined on any of TechSoft's miller/routers. Moulds can be machined in a variety of materials, but we have found that Jelutong and MDF offer a good finish at a reasonable price. Jelutong does however have one great advantage over MDF in that it machines in a fraction of the time. When CAD/CAM and casting are put together a whole new world of designing and making is opened.

Specification

Weight:	10kg (approx.)
Dimensions:	242(W) x 280(D) x 300(H)mm
Max. Mould Size: (using mould holding device*)	100 x 100 x 30mm *Larger sizes can be achieved without the use of the mould holding device
Crucible capacity:	2.3kg

What's Included

Accessories

Supplied with 1kg (approx.) of lead free pewter.

Warranty

UK Mainland & Ireland: 1 Year Return to Base
Elsewhere: 1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

LT1 - Low Temperature Casting System

TM-LT1	Low Temperature Casting System	701.00
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Casting Accessories

TMP-LT1-MC	Mould Carrier	12.50
TMP-LT1-MCC	Mould Clip Spring	7.30

Casting Materials

TA-PEWTER	1kg Lead Free Pewter (245°C approx.)	49.00
TA-ALLOY	1kg Low Melting Point Alloy (135°C approx.)	49.00

Jelutong

TA-JELU-50	Pack of 50 blocks (100 x 70 x 15mm)	58.00
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Heat Treatment

Flamefast Brazing Hearths / Chip Forges

Flamefast Brazing Hearth



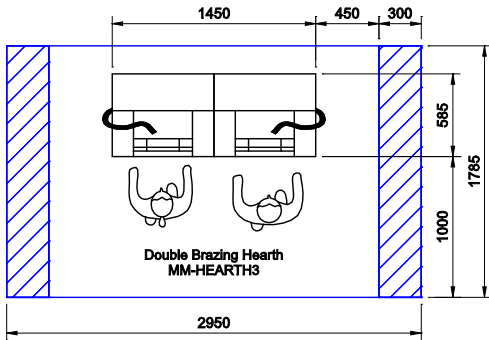
DS400 Single

Shown with extraction canopy (supplied separately).

DS400D Double

DS400 and DS400D brazing hearths feature large 0.4 square metre refractory bases with insulated sides to prevent flame spillage. Both models use the same whisper quiet integral fan unit and feature comprehensive interlocking to prevent flaring or gas leakage in the event of power failure. Each hearth is supplied with an RF80 brazing torch capable of delivering up to 80,000 BTU. Torches have electronic ignition and single hand wheel control for adjusting the flame size whilst maintaining a consistent flame pattern. Fine-flame RF10 Jewellery torches can be supplied in addition to, or instead of, the general purpose RF80 model. The brazing hearths are based on well-proven Flamefast technology and have a well-deserved reputation for low-maintenance, safety and reliability.

Requires additional Heat Treatment Extraction.



See page 10 for drawing details.

Specification	Single	Double
Gas Type:	Natural Gas, Propane or Butane	
Dimensions:	720(W) x 585(D) x 1967(H) mm (with canopy) 720(W) x 585(D) x 1192(H) mm (without canopy)	1450(W) x 585(D) x 1967(H) mm (with canopy) 1450(W) x 585(D) x 1192(H) mm (without canopy)
Weight:	112kg	215kg
Power Requirements:	240V 1A, Fused switch-disconnector (metal clad)	

Flamefast Brazing Hearth/Chip Forge



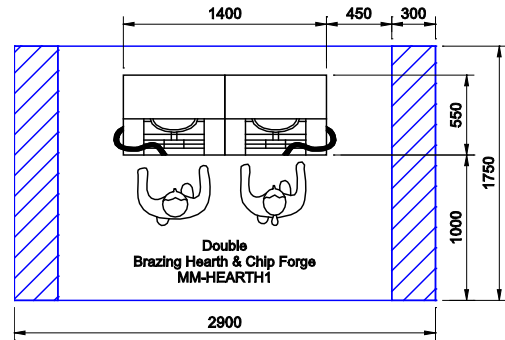
DS430S Single

Shown with extraction canopy (supplied separately).

DS430D Double

At the heart of each unit is a 340mm diameter forge bowl which uses ceramic chip technology to virtually eliminate surface scale-formation on metals. The maximum 1,500°C working temperature can be achieved within 15 minutes of lighting – sufficient for hot working ferrous metal bar up to 50mm diameter. Both single and double units employ the same whisper quiet integral fan and can be fuelled by natural or LPG bottled gas. Both gas and air supply are interlocked to prevent flaring or gas leakage. Alongside the forge unit are one (single) or two (double) refractory surfaces for brazing. Each is provided with an RF80 brazing torch featuring electronic ignition and single wheel control for flame adjustment. Fine-flame RF10 Jewellery torches can be supplied in addition to, or instead of, the general purpose RF80 model.

Requires additional Heat Treatment Extraction.



See page 10 for drawing details.

Specification	Single	Double
Gas Type:	Natural Gas, Propane or Butane	
Dimensions:	1040(W) x 550(D) x 1800(H) mm (with canopy) 1040(W) x 550(D) x 1080(H) mm (without canopy)	1400(W) x 550(D) x 1800(H) mm (with canopy) 1400(W) x 550(D) x 1080(H) mm (without canopy)
Weight:	100kg	133kg
Power Requirements:	240V 1A, Fused switch-disconnector (metal clad)	

Prices

As installation costs form a significant part of the overall price and vary depending on circumstances, we need to carry out a site survey before quoting.

Please contact TechSoft to discuss your Heat Treatment requirements and to arrange a visit.

Prices

As installation costs form a significant part of the overall price and vary depending on circumstances, we need to carry out a site survey before quoting.

Please contact TechSoft to discuss your Heat Treatment requirements and to arrange a visit.

Flamefast Chip Forge

This unit features ceramic chip technology to virtually eliminate scale-formation on metals. The maximum 1,500°C working temperature can be achieved within 15 minutes of lighting – sufficient for hot working ferrous metal bar up to 50mm diameter. Air supply is by a whisper quiet integral fan, fuel can be natural or LPG bottled gas. Both gas and air supply are interlocked to prevent flaring or gas leakage.

Requires additional Heat Treatment Extraction.

DS430A Shown with extraction canopy (supplied separately).



Specification	
Gas Type:	Natural Gas, Propane or Butane
Dimensions:	720(W) x 560(D) x 1800(H)mm 720(W) x 560(D) x 1080(H)mm (without extraction canopy)
Weight:	133kg
Power Requirements:	240V 1A, Fused switch-disconnector (metal clad)

Flamefast Crucible Furnace



CM450PB

The CM450PB features a tilting crucible which, in most circumstances, will not need lifting when pouring. For larger moulding boxes, a lifting frame is available. This lifts the whole assembly and thus preserves protection to and from the white hot crucible. The furnace is usually placed on a Flamefast Raised Sand Tray which removes the need for a casting pit and provides a safer, more convenient working height for the operator.

Requires additional Heat Treatment Extraction.

Specification	
Gas Type:	Natural Gas, Propane or Butane
Crucible Capacity:	Al 2.9kg Cu/Zn 10kg
Dimensions:	630(W) x 330(D) x 330(H) mm
Weight:	28kg
Power Requirements:	240V 2A, Fused switch-disconnector (metal clad)

Prices

As installation costs form a significant part of the overall price and vary depending on circumstances, we need to carry out a site survey before quoting.

Please contact TechSoft to discuss your Heat Treatment requirements and to arrange a visit.

Flamefast Moulding Bench

The Flamefast Moulding Bench is a robust unit designed to store up to 200kg of moulding sand and has many clever features to prevent sand spillage during moulding operations. Galvanised steel construction provides complete stability. The overall design and a tough stove enamelled finish, matches and complements other Flamefast gas equipment. The two part lid covers the bench when not in use and doubles as a store for moulding tools.



Specification	
Dimensions:	1210(W) x 570(D) x 765(H) mm

Flamefast Welding Bench



This welding bench is ideal for the manual welding requirements in the school or technical college workshop. The 6mm steel surface is provided with pre-cut holes for mounting jigs, fixtures and clamps (not included), making accurate positioning of the workpiece a hassle free affair. Options include a lockable drawer for storage of tools and consumables, side rack for torches and accessories, and bolt on side shelf with ample space for most types of welding equipment.

Requires additional Heat Treatment Extraction.

Specification	
Dimensions:	1060(W) x 600(D) x 1220(H) mm
Weight:	60kg (min)

Prices

As installation costs form a significant part of the overall price and vary depending on circumstances, we need to carry out a site survey before quoting.

Please contact TechSoft to discuss your Heat Treatment requirements and to arrange a visit.

Heat Treatment

HME Brazing Hearths / Chip Forges

HME Brazing Hearth



Single



Double (shown with extraction canopy. Supplied separately).

These single and two-position brazing hearths feature a robust single plinth design and clean lines for an attractive, contemporary appearance. The quiet, single blower unit supplies air to one or both torches. The torches have an elegant pistol-grip design and a single control wheel for the air/gas supply. This ensures close control and a consistent flame pattern for all flame sizes. The torches are auto-igniting and have a unique feature that checks for gas supply integrity before enabling the pre-ignition device. Both gas and air systems are interlocked to prevent flaring or leakage in the event of power failure. Ceramic back and side panels will withstand prolonged flame impingement, restrict flame spillage and preserve the appearance of the cabinets.

N.B. Requires additional Heat Treatment Extraction.

Specification	Single	Double
Gas Type:	Natural Gas, Propane or Butane	
Dimensions:	710(W) x 570(D) x 1660(H) mm (with canopy) 710(W) x 570(D) x 1290(H) mm (without canopy)	1400(W) x 570(D) x 1660(H) mm (with canopy) 1400(W) x 570(D) x 1290(H) mm (without canopy)
Weight:	108kg	185kg
Power Requirements:	415V 2A or 240V 2A Fused switch-disconnector (metal clad)	

Prices

As installation costs form a significant part of the overall price and vary depending on circumstances, we need to carry out a site survey before quoting.

Please contact TechSoft to discuss your Heat Treatment requirements and to arrange a visit.

HME Brazing Hearth/Chip Forge



Single



Double (shown with extraction canopy. Supplied separately).

Both single and double units feature an advanced, whisper-quiet blower unit and HME's distinctive single plinth design. The double unit with two independent brazing hearths and a central forge will probably be all that most schools and colleges will need. The single unit is particularly suitable where space is limited. It provides a generous forge area with the capacity to heat 50mm steel bar to 1,500°C – sufficient for brazing and forging. In addition, a single torch is provided for occasional use when the forge bed will double as a brazing hearth. Torches are as supplied with HME's brazing hearths and feature auto-ignition and gas integrity check for the pre-ignition device. This safety feature is shared with the main forge burner. All air and gas systems are interlocked to prevent flaring or leakage in the event of power failure. Alumina-chip technology for the forge minimises surface-scale formation.

N.B. Requires additional Heat Treatment Extraction.

Specification	Single	Double
Gas Type:	Natural Gas, Propane or Butane	
Dimensions:	700(W) x 575(D) x 1660(H) mm (with canopy) 700(W) x 575(D) x 1030(H) mm (without canopy)	1400(W) x 570(D) x 1660(H) mm (with canopy) 1400(W) x 570(D) x 1290(H) mm (without canopy)
Weight:	118kg	221kg
Power Requirements:	415V 2A or 240V 2A Fused switch-disconnector (metal clad)	

Prices

As installation costs form a significant part of the overall price and vary depending on circumstances, we need to carry out a site survey before quoting.

Please contact TechSoft to discuss your Heat Treatment requirements and to arrange a visit.

HME Alumina Chip Forge



This free-standing forge provides a generous forge area with the capacity to heat 50mm steel bar to 1,500°C. The whisper-quiet blower unit is interlocked with the gas supply to prevent flaring or leakage in the event of power failure. The main burner unit includes a gas integrity check for the pre-ignition device. Alumina-chip technology minimises surface-scale formation.

N.B. Requires additional Heat Treatment Extraction.

Specification	
Gas Type:	Natural Gas or Propane
Dimensions:	700(W) x 575(D) x 880(H)mm
Weight:	131kg
Power Requirements:	415V 2A or 240V 2A, Fused switch-disconnector (metal clad)

HME Crucible Furnace



An automatic melting furnace with an A12 spouted crucible and assisted tilt-action for safe pouring. The quiet blower unit provides a forced air-draft to quickly achieve the higher temperatures needed to melt aluminium. Both gas and air supplies are interlocked to ensure safety in case of power failure, and the auto-ignition sequence prevents flaring to further protect the operator.

N.B. Requires additional Heat Treatment Extraction.

Specification	
Gas Type:	Natural Gas or Propane
Crucible Capacity:	5.6kg
Dimensions:	905(W) x 425(D) x 550(H) mm
Weight:	69kg
Power Requirements:	415V 2A or 240V 2A, Fused switch-disconnector (metal clad)

Prices

As installation costs form a significant part of the overall price and vary depending on circumstances, we need to carry out a site survey before quoting.

Please contact TechSoft to discuss your Heat Treatment requirements and to arrange a visit.

HME Moulding Bench



This heavily constructed unit provides a convenient means to prepare sand moulds while minimising the risk of spillage. The timber frame with plywood panels and doors gives an attractive, traditional appearance. The integral aluminium sand box and generous cupboard space below will contain all the tools and materials needed to ensure a clean, safe work environment.

Specification

Dimensions:	1200(W) x 600(D) x 1010(H) mm
	1800(W) x 600(D) x 1010(H) mm

HME Welding Bench



Featuring HME's distinctive single plinth design, this robust bench will provide a suitable platform for all welding and flame-cutting operations likely to be needed in a school or college setting. The central steel grid has a sand box below to capture sparks, and the refractory back and side surfaces will further contain hot particles. The unit is supplied with earth connection and a central storage shelf.

N.B. Requires additional Heat Treatment Extraction.

Specification

Dimensions:	700(W) x 570(D) x 950(H) mm
	1200(W) x 570(D) x 950(H) mm
	1400(W) x 570(D) x 950(H) mm
Weight:	73kg

Prices

As installation costs form a significant part of the overall price and vary depending on circumstances, we need to carry out a site survey before quoting.

Please contact TechSoft to discuss your Heat Treatment requirements and to arrange a visit.

Thermoforming Equipment

Formech Strip Heaters / Vacuum Formers

Formech Hot Wire Strip Heaters FLB500/1000



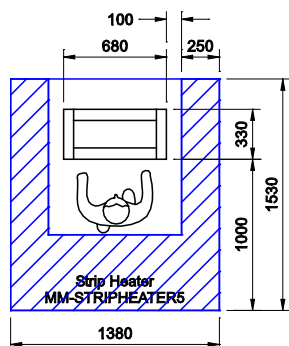
These robust and simple to operate machines from Formech feature temperature regulation and a material clamp to prevent bowing and to aid bend accuracy. Both machines have an adjustable heating gap to control the bend radius and (in addition) the FLB1000 model has a timer and alarm for reliably bending batches of the same material. The optional cooling jig enables material to be set to any given angle.

A key resource for plastics working – these robust, simple machines will suit most workshop or design studio needs.

Specification	FLB500	FLB1000
Max Sheet Width:	500mm	1000mm
Material Thickness:	6mm	
Weight:	8kg	15kg
Dimensions:	680(W) x 330(D) x 175(H)mm	1280(W) x 330(D) x 175(H)mm
Heater Type:	8mm Incoloy, 250W	8mm Quartz, 750W
Power Requirements:	240V 3A, 13A Socket	240V 4A, 13A Socket
Warranty:	UK Mainland & Northern Ireland: 1 Year Return to Base	

CAD Drawing (with Safe Working Area)

Available on request in DXF, DWG & DTD (2D Design) formats. See page 10



Prices £*

*See Pricing Information on page 2

MM-STRIPHEATER5	Formech FLB500 Strip Heater with Cooling Jig	429.00
MM-STRIPHEATER8	Formech FLB1000 Strip Heater with Cooling Jig	924.00

Accessories and Consumables

For accessories and consumables see page 179

Formech Compac Mini Vacuum Former



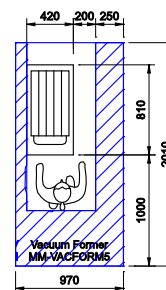
This is a compact and versatile machine requiring minimal working space aimed at entry level vacuum forming. Incorporating the latest technology it is safe and easy to use and can produce high quality vacuum formings. Forming area 280mm x 230mm. Single zone ceramic heaters, forms up 4mm material, safety interlock + pressure outlet.

Easy to house when space is tight and ideal as an individual resource where small packaging and housing projects are a regular need.

Specification	
Material size:	300 x 250mm
Aperture Size:	280 x 230mm
Max. Mould Height:	130mm
Max. Material Thickness:	4mm
Weight:	33kg
Dimensions:	490(W) x 810(D) x 427(H)mm
Dimensions (with stand):	465(W) x 810(D) x 1155(H)mm
Power Requirements:	240V 5A, 13A Socket
Warranty:	UK Mainland & Northern Ireland: 1 Year Return to Base

CAD Drawing (with Safe Working Area)

Available on request in DXF, DWG & DTD (2D Design) formats. See page 10.



Prices £*

*See Pricing Information on page 2

MM-VACFORM5	Formech Compact Mini Vacuum Former	1,543.00
MM-VACFORM5B	Stand with Castors for MM-VACFORM5	185.00
MM-VACFORM5F	Reducing Window 125 x 100mm (aperture)	85.00
MMP-VF-SP11	Starter Pack of Plastic cut to 300 x 250mm. (Contains 20 panels 1mm black Gloss/Matt HIPS; 20 panels 1mm white Gloss/Matt HIPS; 30 colour panels 1.5mm (green, purple, sky blue) Gloss/Matt HIPS; 40 panels 1.5mm Black Pinseal ABS, 12 Panels 1mm Clear Styrolux)	75.00

Accessories and Consumables

For accessories and consumables see page 179

Formech 300XQ Vacuum Former



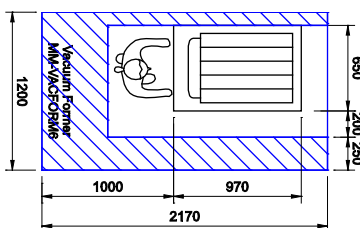
The 300XQ has powerful quartz heaters which are ready to use in seconds providing rapid heat response times. Cost savings are considerable as there is also a preset percentage power drop when the heater is in the rear position. Forming area 430mm x 280mm, quartz heaters with four zones, timer & vacuum gauge, forms up 6mm material, safety interlock + pressure outlet.

A high specification, large work area and energy saving control systems make this an ideal whole-department resource and a highly capable individual workshop machine.

Specification	
Material size:	450 x 300mm
Aperture Size:	430 x 280mm
Max. Mould Height:	160mm
Max. Material Thickness:	6mm
Weight:	75kg
Dimensions:	650(W) x 990(D) x 525(H)mm
Dimensions (with stand):	650(W) x 1000(D) x 1235(H)mm
Power Requirements:	240V 13A, 13A Socket
Warranty:	UK Mainland & Northern Ireland: 1 Year Return to Base

CAD Drawing (with Safe Working Area)

Available on request in DXF, DWG & DTD (2D Design) formats. See page 10.



Prices £*		*See Pricing Information on page 2
MM-VACFORM6	Formech 300XQ Vacuum Former	2,380.00
MM-VACFORM6B	Stand with Castors for MM-VACFORM6	212.00
MM-VACFORM6C	Reducing Window 228 x 203mm aperture for MM-VACFORM6	110.00
MM-VACFORM6F	Reel Feed Gantry	240.00
MMP-VF-SP12	Starter Pack of Plastic cut to 450 x 300mm. (Contains 18 panels 1mm black Gloss/Matt HIPS; 12 panels 1mm white Gloss/Matt HIPS; 24 colour panels 1.5mm (green, yellow, purple, sky blue) Gloss/Matt HIPS; 20 panels 1.5mm Black Pinseal ABS, 8 Panels 1mm Clear Styrolux)	80.00

Accessories and Consumables

For accessories and consumables see page 179

RJH Finishing Gerbil 2010 / 2020 / 2030



MM-VACTRIM5 with optional side shelf

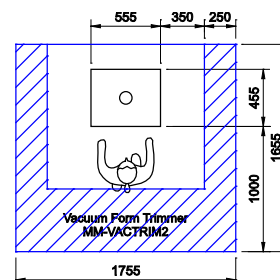
MM-VACTRIM2

These multi-purpose vacuum form trimming and finishing machines are designed for safe and accurate trimming of waste from vacuum-formed shells. They are supplied as standard with a Tungsten Carbide disc and holder for vacuum-form trimming. A no-volt release switch is fitted as standard. The 2020 differs from the 2010 in that it has a tilting table, an adjustable guide fence, a large diameter hand wheel, a dust extraction fence incorporating a tool guard and a full toolkit. The 2030 model adds a customised Gerbil Trolley and a small drum sander.

Specification	
Tool Height Adjustment:	20mm
Table Size:	400 x 455mm
Weight:	19kg (2010); 21kg (2020); 44kg (2030)
Dimensions:	400(W) x 455(D) x 315(H)mm (2010) 555(W) x 455(D) x 315(H)mm (2020)
Power Requirements:	240V 5A, 13A Socket
Warranty:	UK Mainland: 2 Years On-Site Elsewhere: 2 Year Return and Collect

CAD Drawing (with Safe Working Area)

Available on request in DXF, DWG & DTD (2D Design) formats. See page 10.



Prices £*		*See Pricing Information on page 2
MM-VACTRIM1	RJH Finishing Gerbil 2010	602.00
MM-VACTRIM2	RJH Finishing Gerbil 2020	858.00
MM-VACTRIM5	RJH Finishing Gerbil 2030	1,104.00
MT-VT-TKIT1	Tool Kit for MM-VACTRIM1 Includes tungsten carbide disc and holder, tungsten carbide flange cutter, two flap wheels for general deburring, finishing mop and compound bar, polishing mop and compound bar, allen keys for tool changing	89.00
SF-TROLLEY25	Trolley for Gerbil	260.00
SF-TROLLEY25S	Optional Side Shelf for Gerbil Trolley Folds down when not in use	46.00

Accessories and Consumables

For accessories and consumables see page 179

Thermoforming Equipment

Clarke Vacuum Formers

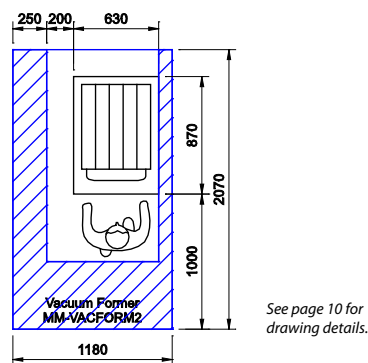
Clarke 1210 Vacuum Former



For sheet size 305 x 229mm. Hood and platen systems have chromed slide bars and nylon bushings for smooth operation, and a safety interlock to prevent moulds being raised into the heaters. Single zone ceramic elements for even heat distribution. Blow release to assist material removal and no-volt release automatically isolates the machine in the event of power failure. A stand is available.

N.B. Ideal as an individual resource for a systems and control/electronics teaching area, for example, where small packaging and housing projects are a regular need.

Specification	
Material Sheet Size:	305 x 229mm
Aperture Size:	280 x 204mm
Max. Mould Height:	100mm
Max. Material Thickness:	6mm
Weight:	41kg
Dimensions:	630(W) x 870(D) x 600(H)mm
Power Requirements:	240V 6A, 13A Socket
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect



Prices £*		
<small>*See Pricing Information on page 2</small>		
MM-VACFORM2	Clarke 1210 Vacuum Former	1,539.00
MM-VACFORM2B	Stand with Castors for MM-VACFORM2	181.00

Accessories and Consumables

For accessories and consumables see page 179

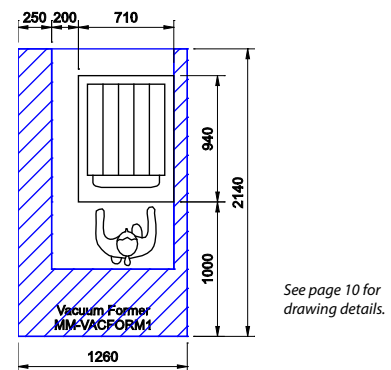
Clarke 725 / 750 FLB Vacuum Formers



For sheet sizes up to 458 x 254mm (725 FLB) or 508 x 458mm (750 FLB). Hood and platen systems have chromed slide bars and nylon bushings for smooth operation, and a safety interlock to prevent moulds being raised into the heaters. 4-zone ceramic elements have digital control, timing and display for even heat distribution. Blow release to assist material removal and no-volt release automatically isolates the machine in the event of power failure. Reducing plates are available for both machines.

N.B. Most workshops and Product Design areas will find this scale of machine answers all their day to day needs.

Specification	725 FLB	750 FLB
Material Sheet Size:	458 x 254mm	508 x 458mm
Aperture Size:	432 x 228mm	482 x 432mm
Max. Mould Height:	140mm	140mm
Max. Material Thickness:	6mm	6mm
Weight:	68kg	91kg
Dimensions (mm):	710(W) x 940(D) x 640(H)	760(W) x 1350(D) x 640(H)
Power Requirements:	240V 9A, 13A Socket	240V 12A, 13A Socket
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect	



Prices £*		
<small>*See Pricing Information on page 2</small>		
MM-VACFORM1	Clarke 725 FLB Vacuum Former	2,459.00
MM-VACFORM1B	Stand with Castors for MM-VACFORM1	203.00
MM-VACFORM3	Clarke 750 FLB Vacuum Former (including Stand with Castors)	4,091.00

Recommended Extras

MM-VACFORM1C	1/2 Sheet Reducing Plate for MM-VACFORM1/3 (Aperture 229 x 203mm, Sheet Size 254 x 229mm)	129.00
MM-VACFORM3B	1/2 Sheet Reducing Plate for MM-VACFORM3 (Aperture 432 x 228mm, Sheet Size 458 x 254mm)	154.00
MM-VACFORM3C	1/4 Sheet Reducing Plate for MM-VACFORM3 (Aperture 229 x 203mm, Sheet Size 254 x 229mm)	154.00

Accessories and Consumables

For accessories and consumables see page 179

Thermoforming Equipment

Thermoforming Centre / Vac Form Router

Clarke Thermoforming Centre 911



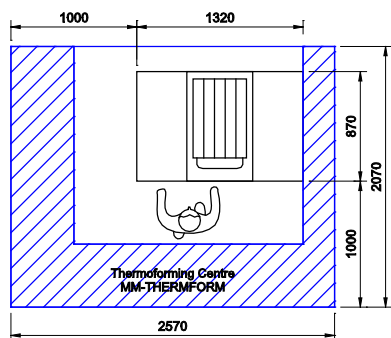
This Thermoforming Centre combines six processes into a single, mobile unit: Vacuum Forming, with two sheet sizes of 305 x 305mm and 305 x 152mm. Fan Circulated Oven with digital temperature control up to 400°C. This can be used for heating materials prior to dome blowing, injection moulding, extrusion and dip coating. Dome Blowing: three diameters, 305, 225 and 152mm. Plastic Dip Coating, with a fluidised bath 150 x 150 x 250mm deep. Injection Moulding, pneumatically actuated, complete with two moulds. Extrusion, complete with I section extrusion nozzle. Plastic Welding, with an industrial hot air welding torch, work table and adjustable angle stop.

N.B. If space is at a premium and resources need to be shared between rooms, this gives all the plastic-forming tools a department is ever likely to need in a neat format. Individual capacity is limited so, for most schools and colleges, stand-alone machines will be a more economical solution in addition to, or instead of, this machine.

Specification	
Vacuum Forming Sheet Sizes:	305 x 305mm & 305 x 152mm
Oven Temp Range:	0° to 400°C
Dome Blowing Diameters:	152mm, 225mm & 305mm
Plastic Dip Coating Bath Size:	150(W) x 150(D) x 250(H)mm
Weight:	207kg
Dimensions:	1320(W) x 870(D) x 1420(H)mm
Power Requirements:	240V 12A, 13A Socket
Warranty:	UK Mainland: 1 Year On-site Elsewhere: 1 Year Return and Collect

CAD Drawing (with Safe Working Area)

Available on request in DXF, DWG & DTD (2D Design) formats. See page 10.



Prices £*		*See Pricing Information on page 2
MM-THERMFORM	Clarke Thermoforming Centre 911	8,526.00

Accessories and Consumables

For accessories and consumables see page 179

Clarke Profile Router 145



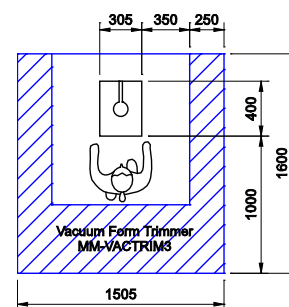
Trimming vacuum-formed shells is a key process which can be difficult to do accurately using conventional saws or snips. This Profile Router makes the job safe, and virtually fool-proof, by using a small carbide router cutter to cut excess material at a precise and consistent distance from the raised moulding. The distance can be adjusted to trim flush, or to leave a flange up to 6mm wide. This is achieved by using an ingenious guard that completely covers the rotating cutter but acts also as a guide to off-set the cut, and as a clamp to hold down the moulding. Spindle control is by footswitch thus leaving both hands free to control the work piece. The main cabinet has a port for connecting to LEV. LEV is not essential since the plastic waste will not become airborne, but is useful to maintain a tidy workspace.

This quiet, low maintenance machine will transform the ability to produce cleanly-trimmed vacuum formed shells in a busy classroom.

Specification	
Maximum thickness capability:	3mm
Trimming distance:	Flush to 6mm Flange
Cutter Speed:	2850rpm
Cutter:	3.18mm carbide slot drill
Motor:	180W (Industrial quality, balanced, fan cooled)
Weight:	14kg
Dimensions:	305(W) x 400(D) x 330(H)mm
Power Requirements:	240V 2A, 13A Socket
Warranty:	UK Mainland: 1 Year On-site Elsewhere: 1 Year Return and Collect

CAD Drawing (with Safe Working Area)

Available on request in DXF, DWG & DTD (2D Design) formats. See page 10.

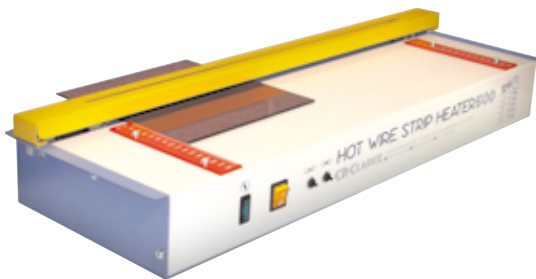


Prices £*		*See Pricing Information on page 2
MM-VACTRIM3	Clarke 145 Vacuum Form Cutter/profile router	658.00

Thermoforming Equipment

Strip Heaters

Clarke Hot Wire Strip Heater 500

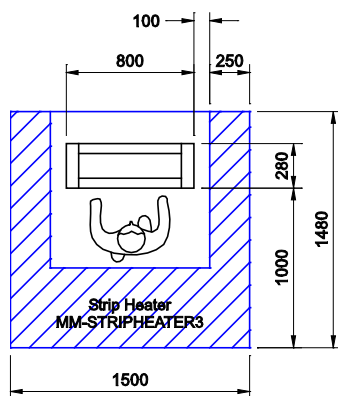


A simple 'no-frills' strip heater offering an economical solution for bending thermoplastics up to 4mm in thickness. A single wire is used which allows for tight radius folds. The wire has a single heat setting, is guarded and operates at low voltage for safety. Graduated scales on the work table assist accuracy which can be further enhanced by using the optional Folding Jig.

Specification	
Wires Below:	1
Wires Above:	0
Maximum Sheet Width:	500mm
Material Thickness:	4mm
Weight:	10kg
Dimensions:	800(W) x 280(D) x 70(H)mm
Power Requirements:	240V 0.4A, 13A Socket
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

CAD Drawing (with Safe Working Area)

Available on request in DXF, DWG & DTD (2D Design) formats. See page 10.



Prices £*

*See Pricing Information on page 2

MM-STRIPHEATER3	Clarke Hot Wire Strip Heater 500mm	319.00
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Consumables

For consumables see page 179

Clarke Hot Wire Strip Heaters 600S/D & 1000S/D



These latest hot wire strip heaters from CR Clarke feature calibrated, adjustable work stops for accuracy, adjustable wire height to suit a range of different materials, and the option of twin heating wires for bending larger radii when needed. Optional contact blades are available for bending thin material and all machines have a clamp beam to prevent bowing. In addition, 'D' models have an upper heater beam. This allows thicker and less thermally conductive plastics to be worked with confidence.

N.B. A key resource for plastics working – these capable machines will suit any workshop or design studio and have features to keep fingers away from hot plastic and elements.

Specification	600S	600D	1000S	1000D
Wires Below:	2	2	2	2
Wires Above:	0	2	0	2
Max Sheet Width:	600mm	600mm	1000mm	1000mm
Material Thickness:	8mm	10mm	8mm	10mm
Weight:	16kg	20kg	24kg	28kg
Dimensions:	790(W) x 410(D) x 240(H)mm	790(W) x 410(D) x 240(H)mm	1360(W) x 410(D) x 240(H)mm	1360(W) x 410(D) x 240(H)mm
Power Requirements:	240V 1A 13A Socket	240V 2A 13A Socket	240V 2A 13A Socket	240V 4A 13A Socket
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect			

Prices £*

*See Pricing Information on page 2

MM-STRIPHEATER1	Clarke Single Sided Hot Wire Strip Heater 600S	460.00
MM-STRIPHEATER1D	Clarke Double Sided Hot Wire Strip Heater 600D	713.00
MM-STRIPHEATER2	Clarke Single Sided Hot Wire Strip Heater 1000S	684.00
MM-STRIPHEATER2D	Clarke Double Sided Hot Wire Strip Heater 1000D	983.00
MMP-SH-JIG2	Clarke Calibrated Folding Jig 600mm Capacity	116.00
MMP-SH-JIG3	Clarke Calibrated Folding Jig 1000mm Capacity	140.00

Consumables

For consumables see page 179

Clarke Injection Moulder 25

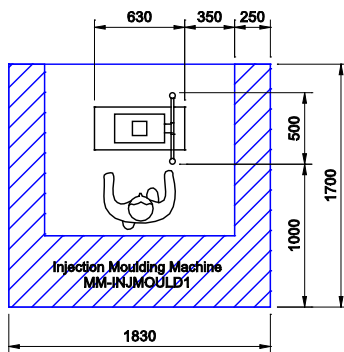


This well-engineered machine is ideal to demonstrate this important production process, and more than capable of producing dense, functional parts for projects. Up to 25g of suitable thermo-plastic is melted in the temperature controlled heating barrel and injection is by a rack and pinion driven ram. Two part moulds are locked into an over-centre clamping system which incorporates an automatic product release mechanism. Injection moulding is an ideal compliment to CNC milling for mould production.

Specification	
Mould Capacity:	Up to 25g
Ram type:	Calibrated rack and pinion - hand operated lever
Weight:	31kg
Dimensions:	630(W) x 500(D) x 730(H) mm
Power Requirements:	240V 2A, 13A Socket
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

CAD Drawing (with Safe Working Area)

Available on request in DXF, DWG & DTD (2D Design) formats. See page 10.



Prices £*		*See Pricing Information on page 2
MM-INJMOULD1	Clarke Injection Moulder c/w wheel mould and 2kg of granules	1,611.00

Hot Wire Sculptor 280

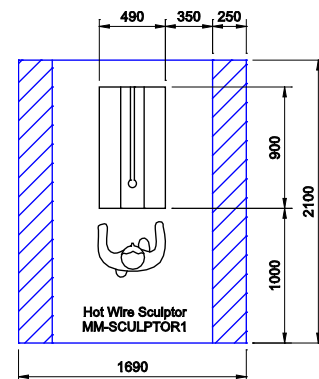


The ideal tool for cutting and shaping styrene and polystyrene foams for model making, display signs, etc. The robust polyethylene table is grooved to accept circle, angle and straight cutting guides so clean, dimensionally accurate, models can be produced with ease. A free-hand sculpting tool allows organic forms and details to be worked with equal precision. The wire is controlled by footswitch so only remains hot when being used for sculpting – this virtually eliminates the problem of excess fumes caused by plastic residues on the wire.

Specification	
Max Cutting Thickness	280mm
Cutting Angle:	Protractor adjustment on bow
Throat Depth:	635mm
Cutting Speed:	Bow: 5 speeds, Sculpting Tool: 3 speeds
Weight:	22kg
Dimensions:	490(W) x 900(D) x 510(H) mm
Power Requirements:	240V 2A, 13A Socket
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

CAD Drawing (with Safe Working Area)

Available on request in DXF, DWG & DTD (2D Design) formats. See page 10.



Prices £*		*See Pricing Information on page 2
MM-SCULPTOR 1	Clarke 280 Hot Wire Cutter	556.00

Thermoforming Equipment

Dip Coating / Oven

Clarke Plastic Dip Coating System



This compact, portable system provides a fluidised bath of polythene powder for evenly coating pre-heated metal parts. The unit comprises both small (5 litre) and large (50 litre) fluidised baths for different sized components. A quiet blower unit provides the high-volume, low-pressure air supply needed. All the items are housed on a purpose built stand with a convenient control panel.

N.B. A Clarke Oven 200FD will be needed alongside this unit. Dip coating is an excellent finishing technique for workshops where metalworking is a priority.

Specification	
Weight:	17kg
Overall Dimensions:	670(W) x 770(D) x 770(H)mm
Power Requirements:	240V 5A, 13A Socket
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

300 Bath	
Internal Dimensions:	300(W) x 300(D) x 600(H)mm
External Dimensions:	340(W) x 320(D) x 760(H)mm
Static Volume:	50 litre
Min. Operating Volume:	25 litre

150 Bath	
Internal Dimensions:	150(W) x 150(D) x 250(H)mm
External Dimensions:	310(W) x 320(D) x 300(H)mm
Static Volume:	5 litre
Min. Operating Volume:	1.25 litre

120 Blower	
Dimensions:	400(W) x 240(D) x 230(H)mm
Weight:	6kg

Prices £*		*See Pricing Information on page 2
MM-DIPCOAT1	Clarke Plastic Dip Coating System (comprising Blower, 50 litre Bath, 5 litre Bath & Stand)	998.00

Clarke Oven 200FD



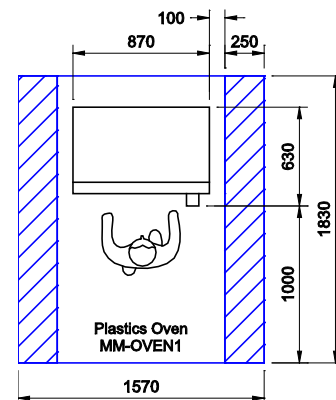
Designed for heating thermoplastics prior to forming and particularly suited for heating metal components ready for dip-coating. Digital temperature control and fan assistance ensure accurate, even heat distribution. The generous internal dimensions mean most project components will be accommodated.

N.B. Not a key resource but good to include for a well-resourced department. Essential alongside a dip-coating system.

Specification	
Temp. Range:	0° to 350°C
Internal Capacity:	508(W) x 355(D) x 304(H)mm
Weight:	50kg
External Dimensions:	870(W) x 630(D) x 600(H)mm
Power Requirements:	240V 13A, 13A Socket
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

CAD Drawing (with Safe Working Area)

Available on request in DXF, DWG & DTD (2D Design) formats. See page 10.



Prices £*		*See Pricing Information on page 2
MM-OVEN1	Clarke Oven 200FD	1,283.00
MM-OVEN1E	Stand with Castors for MM-OVEN1	224.00

Clarke R25 Schredder



Very much a machine for our age, the R25 Schredder enables students to turn waste plastic into useful material for future projects. By direct involvement with re-cycling, students will engage with key issues concerning sustainability, and begin to appreciate environmental imperatives that require effort and have a cost. Scrap material will need cleaning, drying and sorting which leads to questions about responsible consumption. The raw material may be free but how long before you break-even? Can you put a price on the environmental benefit of using material that otherwise would have been dumped? All important questions but, luckily, the machine itself is a lot simpler to explain!

The Clarke R25 Schredder is a cold granulator that uses a combination of fixed and rotating blades to process waste thermoplastic into fine granules. Material is loaded into a hopper and then passes through the blades until fine enough to pass a mesh filter and on into a collection bin. Most types of thermoplastic are suitable and this includes rigid (not foamed) polystyrene, PET, polypropylene, acrylic, etc. Material can be sorted into same-colour batches or mixed to give a speckled or multi-coloured effect.

N.B. The Schred recycling system is unable to fully process acrylic. The Schredder can granulate acrylics without issue, however the Sheet Press (or any other system) will be unable to re-constitute a sheet of pure acrylic.

Testing has proven that success rate with acrylic is very much dependant on the grade being used, and that (in reality) you would be unlikely to have any control or knowledge of this grade due to variations in composition from suppliers. On this basis, the best result that you could achieve reliably is material that has a content of acrylic (<50%), but that this is mixed with a more meltable material (such as HiPS or PP) acting as a binder between the grains of acrylic. This is still a very useable material.

Acrylic is unique in being tricky to process, but many other types of thermoplastic such as rigid (not foamed) polystyrene, LDPE (milk bottles), polypropylene, etc., can be processed with ease.

Specification	
Cutting Chamber:	200 x 280mm
Motor:	1kW
Rotor Speed:	290rpm
Max. Throughput Capacity:	80kg/hr
Weight:	265kg
Dimensions:	575(W) x 870(D) x 1370(H)mm
Power Requirements:	240V 8A, 13A Socket
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Prices £*		
*See Pricing Information on page 2		
MM-RECYCLE1T	R25 Schred Plastic Granulator (3 phase)	3,377.00
MM-RECYCLE1S	R25 Schred Plastic Granulator (1 phase)	3,615.00

Clarke R30 Sheet Press



The R30 Sheet Press takes granulated thermoplastic material from the Shredder and uses heat and pressure to convert it into useable material for line bending, laser cutting, milling or vacuum forming. The press comprises two temperature controlled aluminium hotplates and a cassette to hold the granulated material. The cassette is evenly loaded with granules and placed between the hotplates. A built-in hydraulic ram is then used to compress the granules and an appropriate time and heat cycle is set on the digital control panel. Heat and pressure cause the granules to fuse, and when the cycle is complete, the pressure is released and the cassette is removed. Sheets must then be allowed to cool and this can be hastened by cold-water rinsing, or by using the optional fan-assisted cooling system.

The standard cassette supplied produces a flat 457 x 254mm sheet which is suitable for the Clarke 725 FLB vacuum former (see page 178). Other cassettes are available and these include a form tool for producing Frisbees. Making 'bespoke' form tools offers considerable scope for sustainable student project work and an interesting engineering challenge.

Specification	
Panel Size:	457 x 254mm (standard) 305 x 229mm (with optional MMP-RS-CAS1 tray) 457 x 305mm (with optional MMP-RS-CAS3 tray)
Average Panel Thickness:	2-3mm
Average Time to Press a Sheet:	10 minutes
Weight:	92kg
Dimensions:	690(W) x 510(D) x 620(H)mm
Power Requirements:	240V 8A, 13A Socket
Warranty:	UK Mainland: 1 Year On-Site Elsewhere: 1 Year Return and Collect

Prices £*		
*See Pricing Information on page 2		
MM-RECYCLE2	Clarke R30 Sheet Press	3,069.00
MM-RECYCLE2B	Stand c/w Locking Castors (for MM-RECYCLE2)	355.00
MM-RECYCLE2C	Cooling System (optional extra for stand MM-RECYCLE2B)	319.00
MMP-RS-M1	Frisbee Mould for R30 Schred Press	240.00
MMP-RS-CAS1	Schred PTFE Coated Sheet Cassette - 305 x 229mm Sheet Size	193.00
MMP-RS-CAS2	Schred PTFE Coated Sheet Cassette - 457 x 254mm Sheet Size (Replacement)	193.00
MMP-RS-CAS3	Schred PTFE Coated Sheet Cassette - 457 x 305mm Sheet Size	193.00
MMP-RS-CAS4	Dry Sublimation Cassette	214.00

Accessories & Consumables

Accessories and Consumables for Woodworking Machines

TechSoft MiniMax Bandsaw Blades

For S45NE:

MT-BS-BL1	Narrow Fine Blade, 10mm, 14tpi, for MM-BANDSAW13 (for straight and curve cuts in thin materials)	18.00
MT-BS-BL2	Wide Fine Blade, 19mm, 14tpi, for MM-BANDSAW13 (for straight cuts in thin materials)	22.00
MT-BS-BL3	Narrow Coarse Blade, 10mm, 6tpi, for MM-BANDSAW13 (for straight and curve cuts in thick timber)	18.00
MT-BS-BL4	Wide Coarse Blade, 19mm, 6tpi, for MM-BANDSAW13 (for straight cuts in thick timber)	22.00

For S400PE:

MT-BS-BL15	Narrow Fine Blade, 10mm, 14tpi, for MM-BANDSAW18 (for straight and curve cuts in thin materials)	18.00
MT-BS-BL16	Wide Fine Blade, 19mm, 14tpi, for MM-BANDSAW18 (for straight cuts in thin materials)	22.00
MT-BS-BL17	Narrow Coarse Blade, 10mm, 6tpi, for MM-BANDSAW18 (for straight and curve cuts in thick timber)	18.00
MT-BS-BL18	Wide Coarse Blade, 19mm, 6tpi, for MM-BANDSAW18 (for straight cuts in thick timber)	22.00

For S500PE:

MT-BS-BL19	Narrow Fine Blade, 10mm, 14tpi, for MM-BANDSAW19 (for straight and curve cuts in thin materials)	19.00
MT-BS-BL20	Wide Fine Blade, 19mm, 14tpi, for MM-BANDSAW19 (for straight cuts in thin materials)	23.00
MT-BS-BL21	Narrow Coarse Blade, 10mm, 6tpi, for MM-BANDSAW19 (for straight and curve cuts in thick timber)	19.00
MT-BS-BL22	Wide Coarse Blade, 19mm, 6tpi, for MM-BANDSAW19 (for straight cuts in thick timber)	23.00

For S600PE:

MT-BS-BL11	Narrow Fine Blade, 10mm, 14tpi, for MM-BANDSAW14 (for straight and curve cuts in thin materials)	19.00
MT-BS-BL12	Wide Fine Blade, 19mm, 14tpi, for MM-BANDSAW14 (for straight cuts in thin materials)	23.00
MT-BS-BL13	Narrow Coarse Blade, 10mm, 6tpi, for MM-BANDSAW14 (for straight and curve cuts in thick timber)	19.00
MT-BS-BL14	Wide Coarse Blade, 19mm, 6tpi, for MM-BANDSAW14 (for straight cuts in thick timber)	23.00

TechSoft MiniMax Circular Saw Blades

For SC1E, SC2WE and C30E:

MT-CS-BL1	Standard General Blade 250mm for MM-CIRCSAW7/10	53.00
MT-CS-BL2	Standard Fine Cut Blade 250mm for MM-CIRCSAW7/10 (for thin materials, eg., acrylic sheet)	76.00
MT-CS-BL3	Premium General Blade 250mm for MM-CIRCSAW7/10	65.00
MT-CS-BL4	Premium Fine Cut Blade 250mm for MM-CIRCSAW7/10 (for thin materials, eg., acrylic sheet)	96.00
MT-CS-BL5	Premium Ripping Blade 250mm for MM-CIRCSAW7/10	58.00

For SC2 Classic:

MT-CS-BL20	Standard General Blade 300mm for MM-CIRCSAW12	67.00
MT-CS-BL21	Standard Fine Cut Blade 300mm for MM-CIRCSAW12 (for thin materials, eg., acrylic sheet)	79.00
MT-CS-BL22	Premium General Blade 300mm for MM-CIRCSAW12	77.00
MT-CS-BL23	Premium Fine Cut Blade 300mm for MM-CIRCSAW12 (for thin materials, eg., acrylic sheet)	114.00
MT-CS-BL24	Premium Ripping Blade 300mm for MM-CIRCSAW12	71.00

For SC3WE, CU300E:

MT-CS-BL10	Standard General Blade 315mm for MM-CIRCSAW11	72.00
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TechSoft MiniMax Planer Thicknesser Blades

MT-PT-BL1	Pk of 3 Tersa HSS 300mm knife for MM-PLANTHICK1	36.50
MT-PT-BL11	Pk of 3 Tersa HSS 410mm knife for MM-PLANTHICK2	44.00

Koolkut KK12 Vertical Panel Saw Blades

MT-PS-SB1	Triple Chip Saw Blade for MM-PANELSAW3 (General Purpose blade suitable for most materials)	55.00
MT-PS-SB2	High Bevel Saw Blade for MM-PANELSAW3 (for MFC/Veneers etc.)	80.00

Bosch GCM 12GDL / 12GCL Slide Mitre Saw Blades

MT-MS-BL1	General Blade (40 tooth) for MM-MITRESAW3	39.00
MT-MS-BL2	Fine Blade (60 tooth) for MM-MITRESAW3	42.00
MT-MS-BL3	Extra Fine Blade (96 tooth) for MM-MITRESAW3	46.00

Fretsaw Blades

MT-FS-B1-36	36 Medium Blades for Hegner Fretsaws (suitable for wood and plastics, grade 6)	5.00
MT-FS-B1-144	144 Medium Blades for Hegner Fretsaws (suitable for wood and plastics, grade 6)	14.00
MT-FS-B2-36	36 Fine Blades for Hegner Fretsaws (suitable for wood and plastics, grade 3)	5.00
MT-FS-B2-144	144 Fine Blades for Hegner Fretsaws (suitable for wood and plastics, grade 3)	14.00
MT-FS-B3-36	36 Coarse Blades for Hegner Fretsaws (suitable for wood and plastics, grade 11)	5.00
MT-FS-B3-144	144 Coarse Blades for Hegner Fretsaws (suitable for wood and plastics, grade 11)	16.00

Bandfacer Consumables

Belts:

MT-BF-BLT60	1090 x 150 - 60 Grit Belt. For Antelope/Deer Bandfacer	11.70
MT-BF-BLT80	1090 x 150 - 80 Grit Belt. For Antelope/Deer Bandfacer	11.25
MT-BF-BLT100	1090 x 150 - 100 Grit Belt. For Antelope/Deer Bandfacer	11.10
MT-BF-BLT60-10	1090 x 150 - 60 Grit Belt (Pack of 10). For Antelope/Deer Bandfacer	78.00
MT-BF-BLT80-10	1090 x 150 - 80 Grit Belt (Pack of 10). For Antelope/Deer Bandfacer	73.00
MT-BF-BLT100-10	1090 x 150 - 100 Grit Belt (Pack of 10). For Antelope/Deer Bandfacer	72.00

RJH Extraction Consumables

MT-BF-FILTER1	Dust Extraction Unit Filter Bag for Antelope/Deer/Chamois	52.00
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Clarke Strip Heater Consumables

MMP-NCW-500	Pk of 3 Nickel Chrome Wire, Ready Made for MM-STRIPHEATER3	21.00
MMP-NCW-920	Pk of 2 Nickel Chrome Wire, Ready Made for MM-STRIPHEATER4	21.00
MMP-NCW25-10	10m Roll Nickel Chrome Wire 25SWG (for use with MM-STRIPHEATER1 material Thickness <1mm and MM-SCULPTOR1 for hot wire cutting)	17.00
MMP-NCW20-10	10m Roll Nickel Chrome Wire 20SWG (for use with MM-SCULPTOR1 for sculptor tool)	21.00
MMP-NCW20-120	Nickel Chrome Wire 20SWG, 1Kg roll, 120m approx. (for use with MM-STRIPHEATER1/2/7)	95.00

RJH Finishing Gerbil Accessories

MT-VT-TKIT1	Tool Kit for MM-VACTRIM1. Includes tungsten carbide disc and holder, tungsten carbide flange cutter, two flap wheels for general de-burring, finishing mop and compound bar, polishing mop and compound bar, allen keys for tool changing	89.00
MT-VT-TKIT2	Tool Kit for MM-VACTRIM1. Includes drum sander, tungsten carbide disc and holder, tungsten carbide flange cutter, two flap wheels for general de-burring, finishing mop and compound bar, polishing mop and compound bar, allen keys for tool changing	115.00
MM-VACTRIM1U	RJH Morrisflex Gerbil 2010 Upgrade Kit. Provides everything that is needed to upgrade a Gerbil 2010 to a 2020. (Includes MT-VT-TKIT2)	342.00

Vacuum Forming Machines Service Kits

MMP-VF-SSK1	Service Kit for MM-VACFORM1 (includes Silicone Seal, Platen Seal, Filter & Adhesive)	58.00
MMP-VF-SSK1C	Service Kit for MM-VACFORM1C (includes Silicone Seal & Adhesive)	33.00
MMP-VF-SSK2	Service Kit for MM-VACFORM2 (includes Silicone Seal, Platen Seal & Adhesive)	40.00
MMP-VF-SSK3	Service Kit for MM-VACFORM3 (includes Silicone Seal, Platen Seal, Filter & Adhesive)	63.00
MM-VACFORM5E	Spare Parts Kit for MM-VACFORM5 (contains FSQ 200W quartz, FSQ 250W quartz, ceramic terminal blocks, seal kit (1xsealand, 5m 12x4 seal strip), toggle clamp, inline filter and 2 clamp knobs)	144.00
MM-VACFORM6E	Spare Parts Kit for MM-VACFORM6 (contains FSQ 300W element, FSQ 250W element, SSQ 550W element, toggle clamp, 2 clamp frame grip, 300XQ seal kit (sealant + 5m 12x4, 2m 12x8) and inline filter)	207.00

Vacuum Forming Sheets

MMP-VF-SP1	Pack of 50 Mixed Polystyrene Sheets 458mm x 254mm x 1.5mm. (For MM-VACFORM1)	64.00
MMP-VF-SP2	Pack of 50 Mixed Polystyrene Sheets 310mm x 235mm x 1.5mm. (For MM-VACFORM2)	47.00
MMP-VF-SP3	Pack of 50 Mixed Polystyrene Sheets 515mm x 464mm x 1.5mm. (For MM-VACFORM3)	134.00
MMP-VF-SP0	Pack of 50 Mixed Polystyrene Sheets 305mm x 305mm x 1.5mm. (For MM-THERMFORM1)	54.00
MMP-VF-SP11	Starter Pack of Plastic cut to 300 x 250mm. (Contains 20 panels 1mm black Gloss/Matt HIPS; 20 panels 1mm white Gloss/Matt HIPS; 30 colour panels 1.5mm (green, yellow, purple, sky blue) Gloss/Matt HIPS; 40 panels 1.5mm Black Pinseal ABS, 12 Panels 1mm Clear Styrolux)	75.00
MMP-VF-SP12	Starter Pack of Plastic cut to 450 x 300mm. (Contains 18 panels 1mm black Gloss/Matt HIPS; 12 panels 1mm white Gloss/Matt HIPS; 24 colour panels 1.5mm (green, yellow, purple, sky blue) Gloss/Matt HIPS; 20 panels 1.5mm Black Pinseal ABS, 8 Panels 1mm Clear Styrolux)	80.00

Dip Coating Consumables

MMP-DC-POW1-5	5Kg Tub Polyethylene Dip Coating Powder for General Purpose Use. (Available in Black, Blue, White, Red)	41.00
MMP-DC-POW1-20	20Kg Sack of Polyethylene Dip Coating Powder for General Purpose Use. (Available in Black, Blue, White, Red)	144.00
MMP-DC-POW2-2	2Kg Tub PPA Dip Coating Powder for Heavy Use. (Available in White, Yellow, Red)	43.00
MMP-DC-POW2-5	5Kg Tub PPA Dip Coating Powder for Heavy Use. (Available in White, Yellow, Red)	98.00

Injection Moulds

MMP-IM-M0	Injection Mould - Blank. (For use with MM-INJMOULD1)	78.00
MMP-IM-M1	Injection Mould - Wheel. (For use with MM-INJMOULD1)	142.00
MMP-IM-M2	Injection Mould - Paperclip. (For use with MM-INJMOULD1)	142.00
MMP-IM-M3	Injection Mould - Golf Tee. (For use with MM-INJMOULD1)	142.00
MMP-IM-M4	Injection Mould - Screwdriver Handle - 5mm Straight Shaft. (For use with MM-INJMOULD1)	142.00
MMP-IM-M5	Injection Mould - Screwdriver Handle - 5mm Cranked Shaft. (For use with MM-INJMOULD1)	142.00

Injection Moulding Consumables

MMP-IM-PS-2	2Kg Tub Polystyrene Injection Moulding Granules (Red)	22.00
MMP-IM-PS-5	5Kg Tub Polystyrene Injection Moulding Granules (Red)	42.00
MMP-IM-PE-2	2Kg Tub Polyethylene Injection Moulding Granules (Blue)	23.00
MMP-IM-PE-5	5Kg Tub Polyethylene Injection Moulding Granules (Blue)	42.00
MMP-IM-PP-2	2Kg Tub Polypropylene Injection Moulding Granules (Grey)	32.00
MMP-IM-PP-5	5Kg Tub Polypropylene Injection Moulding Granules (Grey)	60.00

Extraction

Centralised Extraction Systems

Centralised Wood Dust Vacuum System



The System

The C-Vac system consists of a central vacuum fan and filter unit. Available in four different fan sizes C-Vac can provide all the extraction needs for a single workshop or multiple rooms. The system is controlled by a low-voltage circuit and simply operating a machine or connecting to a plug in point will start the system. A variable speed drive ensures that the fan only provides the power required to extract from the points in use, and is economical and quiet in operation. The C-Vac unit can be installed in the classroom, technician's preparation room or in an external enclosure. C-Vac is ATEX compliant.



Designed for Educational Workshops

The C-Vac System has been specifically developed for use in schools and colleges. This unique system has proven to provide cleaner, safer environments for teachers and pupils. It extracts dust from multiple machines simultaneously and incorporates plug in points for portable tools and attachments for floor and bench cleaning. Designed for ease of use it incorporates automatic valves linked to the wood working machines, so that the extraction is on when required. Dust is collected centrally in a sealable trolley-mounted bag for safe and easy disposal. C-Vac is powerful, yet quiet and economical in operation.

Installation

The C-Vac system can be easily installed in new build or existing workshops. Our P602 qualified design team will work with you to assess your requirements and agree the layout. Installation typically takes 2-5 days depending on the size of the system and can be achieved with minimum disruption to the teaching environment. Discrete ducting can be concealed within the ceiling void. Following installation each system is commissioned in accordance with HSG 258 guidance and supplied with user manuals and log books.

One system capturing from all sources

The C-Vac system can be connected to all wood working machinery including circular saws, planer thicknessers, bandsaws, disc sanders, bandfacers and wood lathes. Where bespoke extraction hoods are required (eg., crosscut saws, bobbin sanders) these will be designed, manufactured and installed. Each system is supplied with hoses and attachments for floor and bench cleaning. Portable tools and hand sanding blocks can be connected to the plug-in points with ease.



Flap valves

Commonly used at plug-in points for floor and bench cleaning systems.



Automatic Valves

Commonly fitted to circular saws, planer thicknessers, bandsaws and belt sanders. Fitting automatic valves enables an automatic vacuum start up when a machine is activated.



Manual Slide Valves

Commonly fitted to pillar drills, wood lathes, morticers and portable tools. Fitting manual slide valves allows the operator to manually activate the vacuum by opening the sliding mechanism.

Features

- Powerful high speed dust extraction
- System start can be linked to woodworking machinery - only operates when required
- Variable speed control ensures maximum performance and economy
- Plug in points for portable tools and attachments for floor and bench cleaning
- Quiet in operation in all workshops
- Single collection point with trolley mounted 240 litre dust collection bag
- Bag full and air flow indicators
- Each C-Vac system comes with a two-year warranty



Prices	
C-VAC System	Price subject to survey.

Minimax Dust Extraction System



If a centralised extraction system is not available then this simple bag-extraction unit provides an economical solution for larger machines in a preparation area. The powerful fan unit will extract fine dust and chips from any of the Minimax machines. These share common extraction port details so swapping from one machine to another is simply a matter of transferring a pipe.

To provide total control, TechSoft have upgraded the main top filter to a compact cartridge type. This will capture even the finest of particulates and will ensure a clean, healthy working environment at all times. When approaching full, the lower collection bag is removed in its entirety for disposal. With care to tie the bag and remove it carefully, the system allows for safe, mess-free, waste removal.

A manually-operated internal brush keeps the filters clear. A couple of turns of the handle after each use is all that is needed to maintain filter efficiency.

Specifications	
Extraction Motor:	1 phase: 1.5kW (2.1hp) 3 phase: 1.5kW (2.1hp)
Extraction Bag Capacity:	100 litres
Airflow:	700 litres per second
Hose Connection:	125mm (inc 2 x 100m adapter)
Weight:	51kg
Dimensions (overall footprint):	890(W) x 570(D) x 1830(H)mm
Power Requirements:	415V 1.5kW or 240V 1.5kW Fused switch-disconnector
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect



MM-EXTRACTION70 shown fitted to MM-BANDSAW13 with adapters supplied in MMP-EXT-CONKIT1

MM-EXTRACTION70 shown fitted to MM-CIRCSAW12 with adapters supplied in MMP-EXT-CONKIT1 & MMP-EXT-CONKIT2



MM-EXTRACTION70 shown fitted to MM-PLANTHICK1 with adapters supplied in MMP-EXT-CONKIT1

Prices £*		*See Pricing Information on page 2
MM-EXTRACTION70S	Minimax Dust Extractor with 1 bag (1 phase)	665.00
MM-EXTRACTION70T	Minimax Dust Extractor with 1 bag (3 phase)	649.00
MMP-EXT-SACK1-10	Pack of 10 Heavy Duty Waste Sacks for MM-EXTRACTION70	10.95
MMP-EXT-SACK1-100	Pack of 100 Heavy Duty Waste Sacks for MM-EXTRACTION70	99.00
MMP-EXT-CONKIT1	125mm to 100mm Steel Reducer with Ducting and Clips	79.00
MMP-EXT-CONKIT2	100mm to 60mm Steel Reducer with Ducting and Clips	62.00

Extraction

Workshop Extractors

Standard Extractor, Single Motor



These high-quality British-built extractors are ideal where space is limited. Using appropriate extraction adaptors, they have sufficient power and capacity to serve as LEV units for machines producing lower volumes of finer dust. This makes them the ideal solution for extracting from TechSoft's milling/engraving machines and fretsaws. The extractors feature a threaded exhaust port which allows warm air to be ducted to atmosphere – ideal to prevent overheating when the unit is sited in a cupboard. Steel construction reduces static build-up and the sound attenuating motor housing allows unobtrusive continuous operation in a busy classroom. Waste is collected in the economical Hepaflo filter bags making emptying safe and convenient.

Specification	
Extraction Motor	1.2kW
Extraction Bag Capacity	15 litres
Airflow	45 litres per second
Suction	240Mbar
Hose Diameter:	32 and 51mm
Weight:	11.7kg
Dimensions:	400(W) x 450(D) x 740(H)mm
Power Requirements:	240V 1.2kW, 13A Socket
Warranty:	UK Mainland: 2 Years Return to Base Elsewhere: 2 Years Return and Collect

Prices £*		
*See Pricing Information on page 2		
MM-EXTRACTION36	Standard Extractor, Single Motor	340.00
MMP-EXT-BAG1	10 Hepa-Flo bags for MM-EXTRACTION21	12.85
MMP-EXT-BAG1-16	160 Hepa-Flo bags for MM-EXTRACTION21	187.00
MMP-EXT-FLOORKIT1	Floor Cleaning Kit for MM-EXTRACTION21 <i>(includes clip-on wheeled chassis, floor cleaning tool and steel tube set)</i>	129.00

ESTA Dustomat-10

The ESTA Dustomat-10 is the premium option where a centralised system is not possible. This unit can be used in a fixed position, or (where necessary) can be moved around between several machines (eg., bandsaw, circular saw, planer/thicknesser, etc.) with ease thanks to its heavy-duty lockable castors. The cleanable permanent filter cartridge ensures low operating costs, whilst even the finest of particulates are captured to maintain a clean and healthy working environment at all times. ESTA's patented tilttable filter housing allows quick, safe and mess-free disposal of collected material. A high performance motor, fan and seals ensure that noise levels within the working environment are significantly lower than other system of this type.



Specification	
Extraction Motor	1.3kW
Extraction Bag Capacity	100 litres
Max Airflow:	720m ³ /hr
Max neg. pressure:	2.800Pa
Hose Diameter:	100mm
Weight:	120kg
Dimensions:	530(W) x 1165(D) x 1636(H)mm
Power Requirements:	240V 1.3kW, 16A CEEFORM Socket
Warranty:	UK Mainland: 1 Year Return and Collect Elsewhere: 1 Year Return and Collect

Prices £*		
*See Pricing Information on page 2		
MM-EXTRACTION80	ESTA Dustomat-10 Extractor (1 phase)	1,985.00

Workshop Extractor, Single/Double Motor



The Single Motor Workshop Extractor shares the same motor and filtration system as the Standard Extractor, but gives greater capacity making it more suitable for workshop applications. The Double Motor model is identical except for power, and will be needed to extract heavier, higher volume waste.

Connection kits may be required to connect the Hiloflex hose, which has a smooth bore for efficiency and reduced risk of blocking, to a machine. Waste is collected in the economical Hepaflo filter bags making emptying safe and convenient.

Specification	Single Motor	Double Motor
Extraction Motor	1.2kW	2.4kW
Extraction Bag Capacity	35 litres	35 litres
Airflow	45 litres per second	80 litres per second
Suction	240Mbar	
Hose Diameter	32 and 51mm	
Weight:	13.8kg	
Dimensions:	400(W) x 450(D) x 740(H)mm	
Power Requirements:	240V 1.2kW, 13A Socket	240V 2.4kW, 13A Socket
Warranty:	UK Mainland: 2 Years Return to Base Elsewhere: 2 Years Return and Collect	

Prices £*		
*See Pricing Information on page 2		
MM-EXTRACTION23	Workshop Extractor, Single Motor	415.00
MM-EXTRACTION32	Workshop Extractor, Double Motor	610.00
Integrated auto-switched socket for extractor MM-EXTRACTION23/32 <i>(fitted to the machine at time of purchase)</i> . Price dependent on machine - refer to appropriate machine page.		
MMP-EXT-BAG2	10 Hepa-Flo bags for MM-EXTRACTION23/32	21.00
MMP-EXT-BAG2-6	60 Hepa-Flo bags for MM-EXTRACTION23/32	116.00
MMP-EXT-FLOORKIT2	Floor Cleaning Kit for MM-EXTRACTION23/32 <i>(includes clip-on wheeled chassis, hose, floor cleaning tool and steel tube set)</i>	168.00

Auto Switch Box

This unit provides a simple but highly effective means to automatically run an extraction unit when a machine starts working. The switch box plugs into a standard mains socket and provides similar sockets to power the extractor and one (single version) or two (double version) machines. Total maximum load is 13A.

Prices £*		
*See Pricing Information on page 2		
MM-SWITCH2	Auto Switch Box - Single	148.00
MM-SWITCH3	Auto Switch Box - Double	167.00

Variable Height Dust Extraction Nozzle

For extracting waste from a lathe or other dust source where direct connection to the machine is not possible or convenient.



Prices £*		
*See Pricing Information on page 2		
MM-EXTRACTION8	Variable Height Dust Extraction Nozzle	71.00

Down Draught Table



This robust table will help maintain a healthy working environment whenever students need to carry-out dust or fume generating processes. Wood-sanding and using solvent-based paints and adhesives are obvious examples. The table contains a fan unit which draws air down and away from the operator. Filters within the cabinet trap harmful contaminants and the filtered air is then recycled into the workspace. The standard filter set supplied with the machine meets EU4 standards and will capture 98 – 99% of all contaminants above 10 microns.

Fan Motor	Ave. Air Velocity @ Filter Face (Surface Velocity)	Average Airflow	Ventilated Area	Noise Level @ 2m
370w	1.50m/sec	2000m ³ /hr	1200x600mm	63DbA

Weight:	85kg
Dimensions:	1260(W) x 660(D) x 840(H)mm
Power Requirements:	240V 2A, 13A Socket
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £*		*See Pricing Information on page 2
MM-DDTAB1	TechFlo Down Draught Table Model T1284EX	4,025.00

Solder Fume Extraction Unit



SF-SOLDER-EXT



SF-SOLDER-EXT3

These self-contained units connect directly to Solder Fume Trunking. The larger SF-SOLDER-EXT features a digital control panel and will service up to 30 extraction ports simultaneously; castors allow easy access to the filters. SF-SOLDER-EXT3 has manual controls and is suitable for between 3 to 15 ports. Air is passed through two stages of filtration, HEPA to remove particulates and activated charcoal to absorb any volatile compounds. Both units are quiet in operation and do not require external ventilation.

Prices £*		*See Pricing Information on . 2
SF-SOLDER-EXT3	Solder Fume Extraction Unit with pipework connection kit (to service up to 15 soldering irons - subject to the overall length of the extraction trunking)	855.00
SF-SOLDER-EXT	Solder Fume Extraction Unit with pipework connection kit (to service up to 30 soldering irons, subject to the overall length of the extraction trunking)	1,415.00
SF-SOLDER-EXT3B	Tip Extraction Kit for SF-SOLDER-EXT3 (contains 3 x soldering iron connectors, 3 x 3m straight pipe 32mm, 4 x 90° elbow 32mm, 2 x T joints 32mm, 2 x end joints 32mm)	94.00
MMP-SOLEXT3-MF	Main Filter for SF-SOLDER-EXT3	120.00
MMP-SOLEXT3-PF4	Pack of 4 pre-filters for SF-SOLDER-EXT3	55.00
MMP-SOLEXT-MF	Main Filter for SF-SOLDER-EXT	140.00
MMP-SOLEXT-PF4	Pack of 4 Pre-Filters for SF-SOLDER-EXT	65.00

Extraction Booths



A200H



A200H-D

These extraction booths are essential to maintain a healthy environment when using adhesives or paint sprays in the workshop or studio. Each unit contains a fan which gently draws contaminated air towards a filter panel which will trap harmful material.

The A100H and A200H models re-circulate the filtered air so will be suitable for occasional use in well-ventilated spaces. The A100H-D and A200H-D units have Flexi-ducts which exhaust the filtered air to atmosphere via an open window, etc. These units will suit more continuous use, particularly if using solvent-based sprays or adhesives.

Model	Fan Motor* Spec	Air Volume at Free Air	Ave. Air Velocity at Filter Face	Ave. Air Velocity at Hood Face	Noise Level LAeq dB(A)
A200H	40W	325 m ³ /hr	0.5m/sec	0.25m/sec	59
A100H	80W	650 m ³ /hr	0.5m/sec	0.25m/sec	61
A200H-D	105W	355 m ³ /hr	0.6m/sec	>0.25m/sec	58
A100H-D	210W	710 m ³ /hr	0.6m/sec	0.27m/sec	60

Weights:	A200H: 20kg A200H-D: 21kg	A100H: 35kg A100H-D: 37kg
Dimensions:	A200H: 680(W) x 450(D) x 600(H)mm A100H: 960(W) x 620(D) x 740(H)mm	
Power Requirements:	240V All models <2A, 13A Socket	
Warranty:	UK Mainland: 5 Years Return to Base Elsewhere: 5 Years Return and Collect	

Prices £*		*See Pricing Information on page 2
MM-SPRAYBOOTH2	Spraybooth bench mounted A200H	535.00
MM-SPRAYBOOTH1	Spraybooth bench mounted A100H	735.00
MM-SPRAYBOOTH4	Air Extraction Cabinet A200H-D	640.00
MM-SPRAYBOOTH3	Air Extraction Cabinet A100H-D	975.00

Stands

MM-SPRAYBOOTH2A	Portable Workbench for MM-SPRAYBOOTH2/4	350.00
MM-SPRAYBOOTH1A	Portable Workbench for MM-SPRAYBOOTH1/3	395.00

Filters

MM-SPRAYBOOTH1B	Filter set for MM-SPRAYBOOTH1/3	65.00
MM-SPRAYBOOTH1C	Pack of 6 particulate (intake) filters for MM-SPRAYBOOTH1/3	90.00
MM-SPRAYBOOTH1D	Carbon Impregnated fibre filter for MM-SPRAYBOOTH1	29.95
MM-SPRAYBOOTH1E	Pleated fine particulate (intake) filter for MM-SPRAYBOOTH1	125.00
MM-SPRAYBOOTH2B	Filter set for MM-SPRAYBOOTH2	46.00
MM-SPRAYBOOTH2C	Pack of 6 particulate (intake) filters for MM-SPRAYBOOTH2/4	67.00
MM-SPRAYBOOTH2D	Carbon Impregnated fibre filter for MM-SPRAYBOOTH2	16.00
MM-SPRAYBOOTH2E	Pleated fine particulate (intake) filter for MM-SPRAYBOOTH2	90.00

TechSoft CAD/CAM Workstations



Shown here with RotoCAMM MDX-40AE and computer (supplied separately).

Creating appropriate workspaces with the right equipment levels is a familiar challenge for Design and Technology teachers, and particularly so when it comes to CAD/CAM equipment. Duplicating resources between rooms might be ideal, but most schools would struggle to find space or the budget to do this. Some schools have been able to develop a central CAD/CAM hub and others place key CAD/CAM resources in areas where all students will, at some point, be timetabled. Both strategies have their merits but a third is to move equipment to where it is needed, when it is needed. This flexible approach will, in addition, enable schools to quickly adapt teaching rooms in sympathy with curriculum developments.

To meet these needs, TechSoft have developed a range of workstations, each of which has been carefully designed to provide a complete, portable, 'Plug and Play' resource. The units are constructed for strength and smart appearance, and feature double-skin carcasses in key areas. Surfaces are selected for durability, and thick edge-lippings will help preserve appearances despite inevitable classroom knocks. The workstations move smoothly on lockable industrial grade castors.

All worktops are large enough for any TechSoft desktop-format CAM machine and a computer. Lockable cupboards contain a generous selection of trays for tooling, materials and space for a PC unit. Storage space is carefully configured to suit the designated application and, in the case of the milling/routing workstation, space for the included vacuum extractor. Mushroom-headed push-stop buttons with key-switch release, control the operation of the machine and extraction power outlets. Power status indicators allow a quick visual check if the machine is operational. The key-switch does not cut power to the PC, so work will not be lost. This gives the teacher flexible control over the use of the equipment. Where appropriate, an auto-switched outlet for the extraction system is provided, this also has a manual override for cleaning down. Cable management systems ensure safe, tidy and reliable performance. All extraction units provided, have external ventilation of the exhaust to prevent overheating.

Power Requirements: 240V, 13A Socket

TechSoft Miller/Router Workstation



Simply add a PC and a TechSoft/Roland SRM-20E/MDX-40AE (pages 62-65) or EGX-350E (page 60), and you're ready to go. The unit is fully-wired with key-switch control of the machine and the extraction unit. The extractor is included and will auto-run on MDX-40A & EGX-350E machines. Manual switching can be used with other models and for cleaning down. Status indicators monitor the built-in power sockets and these include power for the PC. The PC socket is not controlled by the stop button / key switch so work will not be lost. Central storage trays will accommodate a generous supply of materials and securely store all the necessary tooling.

Prices £*		*See Pricing Information on page 2
TF-WS3-C1	TechSoft Mobile Workstation for Milling, 1400x800x850mm c/w underbench cupboards containing in-built sockets, auto-switched extractor with manual override, Gratnell trays and storage space for computer.	1,995.00

TechSoft Knife Cutting Workstation



The spacious worktop provides room for handling sheet or roll material for any TechSoft knife cutter up to and including the Roland CAMM 1 GS-24E (see page 34). Lockable storage space includes a PC bay, shelving for sheet material and drawers for several 500mm rolls of vinyl. The unit is fully-wired with key-switch control of machine power and one additional socket – possibly for use with a printer. Status indicators monitor the built-in power sockets and these include power for the PC. The PC socket is not controlled by the stop button / key switch so work will not be lost.

Prices £*		*See Pricing Information on page 2
TF-WS3-C2	TechSoft Mobile Workstation for Knife Cutting, 1400x800x850mm c/w underbench cupboards containing in-built sockets, drawers, shelves and storage space for computer.	1,575.00

TechSoft Embroidery Workstation



This workstation comfortably accommodates a multi-needle embroidery machine (see pages 98-99) and computer. Priority has been given to storage for materials and the numerous small accessories needed for these machines. In this format, the workstation is effectively a multi-purpose unit that could be used for any number of applications. The unit is fully-wired with key-switch control of machine power and one additional socket. Status indicators monitor the built-in power sockets and these include power for the PC. The PC socket is not controlled by the stop button / key switch so work will not be lost.

Prices £*		*See Pricing Information on page 2
TF-WS3-C2	TechSoft Mobile Workstation for Embroidery, 1400x800x850mm <i>c/w underbench cupboards containing in-built sockets, drawers, shelves and storage space for computer.</i>	1,575.00

TechSoft Image Transfer Workstation



Laser Image Transfer (see pages 112-113) or Sublimation Printing (see page 114-115) requires a PC, printer, heat press and a selection of specialist materials. This workstation has been configured to provide separate key-switch operation of the heat press and printer. The key-switches do not cut power to the PC, so work will not be lost. Secure storage space is included for specialist materials that must not be allowed to become muddled with general print media.

Prices £*		*See Pricing Information on page 2
TF-WS3-C2	TechSoft Mobile Workstation for LIT, 1400x800x850mm <i>c/w underbench cupboards containing in-built sockets, drawers, shelves and storage space for computer.</i>	1,575.00

TechSoft Wheeled Stand/Cupboard

uPrint 3D Printer Wheeled Stand/Cupboard



The ideal partner for a uPrint 3D Printer which matches our other workstations in height, depth and appearance. This sturdily built unit has been designed specifically to present the printer at a convenient height so that students can see work in progress. The cabinet interior is furnished to store materials and to house all the maintenance and service tools supplied with the machine. Industrial grade locking castors and secure location of the printer feet allow the 3D Printer to be wheeled between rooms when needed.

Prices £*		*See Pricing Information on page 2
TF-WS4-C1	Wheeled Stand/Cupboard for uPrint or HP Designjet 3D Printer (700x800x850mm)	855.00

Multi Purpose Wheeled Stand/Cupboard



This sturdily built unit has industrial grade locking castors allowing it to be wheeled between rooms when needed. The unit does not include power or cable management, but will match our workstation range as part of a set of flexible resources within a department. The interior has one shelf and two drawers providing ample storage for accessories and materials.

Prices £*		*See Pricing Information on page 2
TF-WS4-C2	Multi-Purpose Wheeled Stand/Cupboard (700x800x850m)	855.00

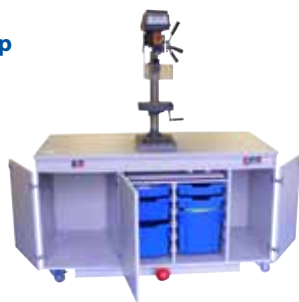
TechSoft Machine Workstations

A TechSoft workstation provides an ideal base for additional small machine tools that will allow them to be shared between rooms as timetables and project work demands. Each workstation features industrial quality locking castors for security once the unit is in place. Mushroom-headed push-stop buttons with key-switch release, control the operation of the machine and extraction power outlets. Power status indicators allow a quick visual check if the machine is operational. Three configurations of the Machine Workstation are available and each ensures that not only the machine, but all the necessary switches and wiring requirements, move with it.

Machines are not included with these units except for extraction units where indicated. If ordered complete with a machine from TechSoft, this will be fully installed before delivery for a true plug and play solution.

Machine Workstation with Foot-stop

This unit will accommodate a bench drill, small metal lathe or bench-top milling machine and includes a latching foot-stop to ensure full compliance with safety regulations. Storage space below includes Gratnell trays for tooling, accessories and general use.



Shown here with Optimum Drill supplied separately (see page 150).

Prices £*		*See Pricing Information on page 2
TF-WS3-C4	TechSoft Mobile Workstation for Workshop Machines, 1400x800x850mm c/w footstop, underbench cupboards containing in-built sockets, Gratnell trays and storage space.	*1,650.00

Machine Workstation with Foot-stop and Extraction

Ideal for any bench mounted machine which requires extraction, such as a bandfacer, polisher, etc. The extraction is auto-switched with a manual override. All extraction units provided have external ventilation of the exhaust to prevent overheating.

Prices £*		*See Pricing Information on page 2
TF-WS3-C5	TechSoft Mobile Workstation for Workshop Machines, 1400x800x850mm c/w footstop, underbench cupboards containing in-built sockets, auto-switched extractor, Gratnell trays and storage space.	*2,195.00

Machine Workstation with Footswitch and Extraction

Primarily intended for fretsaws, these units include an auto-switched extractor with manual override and a 'pedal style' footswitch to control the machine. Storage space below includes Gratnell trays for spare blades, accessories and general use.



Shown here with Fretsaw (supplied separately - see page 144).

Prices £*		*See Pricing Information on page 2
TF-WS3-C3H	TechSoft Fretsaw Workstation 1400x800x850mm Supplied without Fretsaw but complete with footswitch, underbench cupboards containing in-built sockets, auto-switched extractor, Gratnell trays and storage space. (Order fretsaw separately.)	*2,195.00

*N.B. Legacy or customer supplied equipment will require professional installation at additional cost. TechSoft supplied new machines will be fully installed before delivery.

TechSoft Machine Stands

These robust machine stands are suitable for single machine installation in a permanent workshop layout. Although not portable as such, their modular nature means that changing workshop layouts could be achieved for minimal expense, particularly if the initial provision of power in the room takes these units into account. The machine stands are available with locking underbench cupboards that include a single shelf for storing tools and accessories.

Machine Stands are supplied without machines, but do include an extraction unit where indicated. All extraction units fitted within cupboards have external ventilation to prevent overheating. The machine and any switches provided will need professionally wiring to a suitable isolator. Two configurations are available.

Machine Stand / Machine Stand with Optional Cupboard



SF-STAND4



SF-STAND5



SF-STAND7

These units will accommodate a bench drill or any other bench-top machine (see examples below).

Prices £*		*See Pricing Information on page 2
SF-STAND4	Lervad Machine Bench, 600x600x790mm, Solid Beech Top	250.00
SF-STAND5	Machine Bench, 700x600mm, adjustable height, MPX Top	159.00
SF-STAND7	Machine Bench, 700x600mm, adjustable height, MPX Top with underbench cupboard containing shelf	318.00

Machine Stand with Footswitch and Extraction

This unit includes an auto-switching extraction unit and a footswitch. This configuration has been created specifically for use with a fretsaw (see example below).



Prices £*		*See Pricing Information on page 2
MM-EXTRACTION21S	TechSoft Fretsaw Stand 700 x 600 x 780mm, adjustable height. Excluding Fretsaw but complete with auto-switching TechSoft/Numatic Standard Extractor and Footswitch (order fretsaw separately)	815.00



See page 152



See page 147

Nortek Craftwork 1000 / Height Adjustable Workbench



SF-WB1WM

This cost effective multi-media bench system uses the same fully welded heavy duty tubular steel framework as the Craftwork 2000. It has a unique textured phenolic plastic coated top. Available in three configurations; for woodwork alone with four 180mm quick release woodwork vices, for multi-media with two wood and two metalwork vices and for metalwork with four 100mm metalwork vices. The epoxy powder-coated steel framework can be finished in a number of colours, but light grey is supplied as standard.

Optional Underbench Cupboards

There are two sizes of underbench cupboard available. Both are lockable and can be used for the secure storage of tools, project work or materials. The cupboard fits over the base 'X' frame and is double sided having hinged doors on both sides providing two separate storage compartments.



SF-WB1WM + SF-WB1A

The smaller cupboard (shown here) allows pupils to sit comfortably when the benches are used for alternative applications, eg., design work.

Height Adjustable Multi-Materials Workbench



SF-DESK4

This height adjustable workbench has a tough phenolic plastic coated top and is fitted with one woodwork and one metalwork vice. The base is fitted with fixing plates so that the workbench can be secured to the floor.

1200(W) x 600(D) x 670-970(H)mm

Prices £*		*See Pricing Information on page 2
SF-WB1W	Craftwork 1000 Multi-media Bench with 4 woodwork vices (1200 x 1200 x 810mm)	769.00
SF-WB1WM	Craftwork 1000 Multi-media Bench with 2 wood & 2 metalwork vices (1200 x 1200 x 810mm)	713.00
SF-WB1M	Craftwork 1000 Multi-media Bench with 4 metalwork vices (1200 x 1200 x 810mm)	641.00
SF-WB1A	Legroom Underbench Cupboard for Craftwork 1000 (in grey and charcoal with trays)	359.00
SF-WB1AT	Alternative Slide-out Tool Rack for SF-WB1A	102.00
SF-WB1B	Double Sided Full Sized Underbench Cupboard for Craftwork 1000 (in grey and charcoal)	334.00
SF-DESK4	Special Needs Multi Materials Workstation c/w woodwork vice and metalwork vice (1200 x 600 x 670-970mm)	692.00

Nortek Craftwork 2000



SF-WB10

This woodworking bench offers a handsome and strong combination of traditional beech and steel. The work surface is constructed from 40mm thick solid beech with additional 30mm lipping. A central recess accepts a rigid 600mm x 600mm beech framed tray. This serves either to create a completely flush bench surface, or reverses to provide a useful tool well. Each bench has a fully welded tubular steel framework with "X" frame stiffening. 75mm diameter legs terminate with round steel-plates for floor-fixing if required. The epoxy powder-coated steel framework can be finished in a number of colours, but light grey is supplied as standard.

Benches are supplied with four heavy-duty woodwork vices. Each vice has solid beech fitted jaws and an integral machined steel, adjustable bench stop.

Optional Underbench Cupboards

Two sizes of underbench cupboard are available. Both are lockable and can be used for the secure storage of tools, project work or materials. Cupboards fit over the base 'X' frame and have doors fitted to both sides to create two separate storage compartments.



SF-WB10 +
SF-WB10A +
4 MTB-VICE3

The smaller cupboard (shown here) allows pupils to sit comfortably when the benches are used for alternative applications, eg., design work.

Prices £*		*See Pricing Information on page 2
SF-WB10	Craftwork 2000 Woodworking Bench with 4 woodwork vices (1200 x 1200 x 815mm)	1,150.00
SF-WB10A	Legroom Underbench Cupboard for Craftwork 2000 (woodgrain finish with trays)	359.00
SF-WB10AT	Alternative Slide-out Tool Rack for SF-WB10A	102.00
SF-WB10B	Double Sided Full Size Underbench Cupboard for Craftwork 2000 (woodgrain finish)	334.00
MTB-VICE3	Nortek, 'Piggyback' Metalwork 3" vice	62.00
SF-TROLLEY9	Vice Transport Trolley (Holds 12 piggyback metalwork vices)	334.00
SF-RACKSTOR15	Nortek Fixed Metalwork Vice Rack, 1126 x 585mm (Floor fixed. Holds 24 piggyback metalwork vices)	395.00
SF-RACKSTOR16	Nortek Metalwork Vice Rack with 3 drawers, 1126 x 585mm (Floor fixed. Rack holds 24 piggyback metalwork vices)	815.00
SF-RACKSTOR15A	Upper Tool Storage Panel for SF-RACKSTOR15/16 (Fits into the top of the vice rack and can be fitted out with hook kits, see page 202)	170.00

Lervad Flush Top Square Workbench



SF-WB52-BH +
SF-WB52-SH +
4 MTB-VICE11
(Stools not included.)

This handsome bench features solid beech construction throughout and a solid 40mm beech top. To aid transportation, the solid top is supplied in two sections which bolt firmly and accurately together. Once assembled to the frame, this bench is heavy and provides a very stable work platform.

Optional Underbench Shelf/Cupboards

Benches can be supplied with a lower shelf or a lockable cupboard for the secure storage of tools and materials.

SF-WB53-BH +
4 MTB-VICE11
(Stools not included.)



Height Adjustable Flush Top Workbench



SF-WB54-BA +
4 MTB-VICE11
(Stools not included.)

This height adjustable work bench has a solid beech top and telescopic steel legs that provide height adjustment from 640 – 920mm. Legs are fitted with steel plates to allow fixing to the floor if required. These benches can be fitted with woodwork or metalwork vices.

Prices £*	*See Pricing Information on page 2	
SF-WB52-BH	Lervad Flush Top Workbench, 1200 x 1200 x 830mm, 40mm solid beech top	510.00
SF-WB52-SH	Under Shelf for SF-WB52	40.00
SF-WB53-BH	Lervad Flush Top Workbench with integrated cupboard, 1200 x 1200 x 830mm, 40mm solid beech top	900.00
SF-WB54-BA	Lervad Height Adjustable Flush Top Workbench, 1200 x 1200 x 680-960mm, 40mm solid beech top	1,680.00
MTB-VICE11	Record Woodwork Vice V175 fitted with solid beech jaws to Lervad workbench	110.00
MTB-VICE17	Record No. 1 Mechanics Vice, 75mm (3") jaw width, opening 90mm, with vice holder to mount onto Lervad flush top workbenches	120.00
MTB-VICE15	Record No. 3 Mechanics Vice, 100mm (4") jaw width, opening 120mm fitted to Lervad workbench	90.00

Lervad Well Top Square Workbench



SF-WB55-BH +
SF-WB52-SH +
4 MTB-VICE11
(Stools not included.)

The Lervad Well Top Workbench has a 40mm thick solid beech top with a central recess in the worksurface which accepts a beech framed tray. This acts as a tool well or reverses to fit flush with the worksurface.

Optional Underbench Shelf/Cupboards

Benches can be supplied with a lower shelf or a lockable cupboard for the secure storage of tools and materials.

SF-WB56-BH +
4 MTB-VICE11
(Stools not included.)



Height Adjustable Well Top Workbench



SF-WB57-BA +
4 MTB-VICE11
(Stools not included.)

This height adjustable work bench (680-960(H)mm) has a solid beech top with a central recess, and can be fitted with woodwork or metalwork vices. The legs are fitted with fixing plates so that the workbench can be secured to the floor.

Prices £*	*See Pricing Information on page 2	
SF-WB55-BH	Lervad Well Top Workbench, 1200 x 1200 x 830mm, 40mm solid beech top	560.00
SF-WB52-SH	Under Shelf for SF-WB55	40.00
SF-WB56-BH	Lervad Well Top Workbench with integrated cupboard, 1200 x 1200 x 830mm, 40mm solid beech top	950.00
SF-WB57-BA	Lervad Height Adjustable Well Top Workbench, 1200 x 1200 x 680-960mm, 40mm solid beech top	1,730.00
MTB-VICE11	Record Woodwork Vice V175 fitted with solid beech jaws to Lervad Workbench	110.00
MTB-VICE17	Record No. 1 Mechanics Vice, 75mm (3") jaw width, opening 90mm, with vice holder to mount onto Lervad flush top workbenches	120.00
MTB-VICE15	Record No. 3 Mechanics Vice, 100mm (4") jaw width, opening 120mm fitted to Lervad workbench	90.00

Lervad Flush Top Workbench



These sturdy workbenches are available in 1200mm and 1500mm width. They are ideal where space is tight or for use as demonstration benches. Each comes with a 40mm solid beech top.

SF-WB39-BH +
2 MTB-VICE11 (Stools
not included.)

Optional Underbench Shelf/Cupboards

Benches can be supplied with a lower shelf or a lockable cupboard for the secure storage of tools and materials.

SF-WB43-BH +
2 MTB-VICE11



Prices £*		*See Pricing Information on page 2
1200mm Wide:		
SF-WB42-BH	Lervad Flush Top Workbench, 1200 x 750 x 830mm	430.00
SF-WB42-SH	Under Shelf for SF-WB42	55.00
SF-WB43-BH	Lervad Flush Top Workbench with integrated cupboard, 1200 x 750 x 830mm	770.00
SF-WB44-BA	Lervad Height Adjustable Flush Top Workbench, 1200 x 750 x 680-960mm	1,110.00
1500mm Wide:		
SF-WB39-BOH	Lervad Flush Top Workbench, 1500 x 750 x 830mm	480.00
SF-WB39-SH	Under Shelf for SF-WB39	60.00
SF-WB40-BOH	Lervad Flush Top Workbench with integrated cupboard, 1500 x 750 x 830mm	810.00
SF-WB45-BOA	Lervad Height Adjustable Flush Top Workbench, 1500 x 750 x 680-960mm	1,130.00
Optional Vices:		
MTB-VICE11	Record Woodwork Vice V175 fitted with solid beech jaws to Lervad workbench	110.00
MTB-VICE17	Record No. 1 Mechanics Vice, 75mm (3") jaw width, opening 90mm, with vice holder to mount onto Lervad flush top workbenches	120.00

Lervad Metalwork Bench (4 seat)



This Metalwork bench has an extremely sturdy construction and a 40mm thick solid beech top with two protective steel rails. The bench is fitted with four (100mm) metal work vices as standard.

SF-WB49-BHRH +
SF-WB49-SH

Optional Underbench Shelf/Cupboard

Benches can be supplied with a lower shelf or a lockable cupboard.

Prices £*		*See Pricing Information on page 2
SF-WB49-BHRM	Lervad Flush Top Workbench, 1800 x 900 x 830mm, 40mm solid beech top with 2 protective steel rails and 4 mechanics vices (100mm)	1,040.00
SF-WB49-SH	Under Shelf for SF-WB49	65.00
SF-WB50-BHRM	Lervad Flush Top Workbench with integrated cupboard, 1800 x 900 x 830mm, 40mm solid beech top with 2 protective steel rails, and 4 mechanics vices (100mm)	1,380.00
SF-WB51-BARM	Lervad Height Adjustable Flush Top Workbench, 1800 x 900 x 680-960mm, 40mm solid beech top with 2 protective steel rails and 4 mechanics vices (100mm)	1,750.00

Side Benching



Open Frame Side Benches

These side benches have a 30mm solid beech top. They are available in two widths, 900mm and 1760mm, two depths, 600 and 750mm and two heights 790mm and 830mm.

Prices £*		*See Pricing Information on page 2
900mm Wide:		
SF-WB61-BL	Lervad Open Frame Side Bench, 900 x 600 x 790mm	350.00
SF-WB61-BH	Lervad Open Frame Side Bench, 900 x 600 x 830mm	350.00
SF-WB63-BL	Lervad Open Frame Side Bench, 900 x 750 x 790mm	360.00
SF-WB63-BH	Lervad Open Frame Side Bench, 900 x 750 x 830mm	360.00
1760mm Wide:		
SF-WB65-BL	Lervad Open Frame Side Bench, 1760 x 600 x 790mm	520.00
SF-WB65-BH	Lervad Open Frame Side Bench, 1760 x 600 x 830mm	520.00
SF-WB67-BL	Lervad Open Frame Side Bench, 1760 x 750 x 790mm	560.00
SF-WB67-BH	Lervad Open Frame Side Bench, 1760 x 750 x 830mm	560.00



Side Benches with Cupboards

These side benches have a 30mm solid beech top and cupboard underneath. They are available in two widths, 900mm and 1760mm, two depths, 600 and 750mm and two heights 790mm and 830mm.

Prices £*		*See Pricing Information on page 2
900mm Wide:		
SF-WB62-BL	Lervad Side Bench with Cupboard, 900 x 600 x 790mm	660.00
SF-WB62-BH	Lervad Side Bench with Cupboard, 900 x 600 x 830mm	660.00
SF-WB64-BL	Lervad Side Bench with Cupboard, 900 x 750 x 790mm	680.00
SF-WB64-BH	Lervad Side Bench with Cupboard, 900 x 750 x 830mm	680.00
1760mm Wide:		
SF-WB66-BL	Lervad Side Bench with Cupboard, 1760 x 600 x 790mm	1,130.00
SF-WB66-BH	Lervad Side Bench with Cupboard, 1760 x 600 x 830mm	1,130.00
SF-WB68-BL	Lervad Side Bench with Cupboard, 1760 x 750 x 790mm	1,170.00
SF-WB68-BH	Lervad Side Bench with Cupboard, 1760 x 750 x 830mm	1,170.00

Octagonal/Hexagonal Workbenches



New introductions to this popular range mean that three options are now available: Octagonal, Hexagonal, and traditional Square workbenches. Solid beech tops are fitted to all these benches as standard, but a variety of alternatives including sacrificial MDF, and linoleum are available upon request.



Hexagonal and Octagonal workbenches can offer flexibility and space saving advantages in some workshops, whilst still providing adequate individual space for practical work. The shape of the benches makes them ideal as planning tables for design and group work. Optional cupboards (four per bench) are available for octagonal benches, offset under the bench edge to provide leg-room. The traditional square benches are fitted with levelling feet and reversible well tops are available as well as flush tops.

Hexagonal and Square benches are supported by a fully welded, epoxy powder-coated steel frame - this can be finished in a number of colours, but light grey is supplied as standard.

A range of wood and metalworking vices are available for all benches, including the option to have engineering vices fitted to a tray which can be clamped in the jaws of the woodworking vice. This flexible setup effectively allows a standard woodworking vice to be converted for metalwork as and when required.

Prices £*		*See Pricing Information on page 2
Octagonal Workbenches		
SF-WB28-BL	Octagonal Bench with Steel Frame, 1830mm across x 810mm* high, 42mm solid beech top.	1,250.00
SF-WB27-BL	Octagonal Bench with Undercupboards, 1830mm across x 810mm* high, 42mm solid beech top.	1,630.00
Hexagonal Workbenches		
SF-WB90-BL	Hexagonal Bench with Steel Frame, 1600mm across flats x 810mm* high, solid beech top.	940.00
Square Workbenches		
SF-WB32-BL	Square Bench with Steel Frame, 1220x1220x810mm*, 42mm solid beech flush top, levelling feet.	625.00
SF-WB91-BL	Square Bench with Steel Frame & Undercupboard 1220x1220x810mm*, 42mm solid beech flush top, levelling feet. Undercupboard 620mm square.	920.00
SF-WB32-FL	Square Bench with Steel Frame, 1220x1220x810mm*, 44mm solid beech top with flip over central well, levelling feet.	625.00
Vices for the above Workbenches		
MTB-VICE9	Record Woodwork Vice 52PD 175mm jaw width opening 200mm, fitted to workbench.	75.00
MTB-VICE10	Record No. 1 Mechanics Vice, 75mm (3") jaw width, opening 90mm, with laminated tray for fitting to MTB-VICE9.	78.00
MTB-VICE7	Record No. 1 Mechanics Vice, 75mm (3") jaw width, opening 90mm, fitted to workbench.	40.00
MTB-VICE6	Record No. 3 Mechanics Vice, 100mm (4") jaw width, opening 120mm, fitted to workbench.	95.00

*Also available in 860mm height for the same price.

Seating



Basic Glide Chair

A welded oval tubular steel frame with shaped plywood seat and back. Available in clear varnish or a range of colours. Chairs can be stacked or hung on a desktop.

Prices £*		*See Pricing Information on page 2
SF-CHAIR12	Basic Glide Chair. Seat height 460mm.	72.00



LuPo-Glide Chair

An ergonomically shaped polypropylene perforated air cushion seat with welded oval tubular steel frame. Chairs can be stacked or hung on a desktop.

Prices £*		*See Pricing Information on page 2
SF-CHAIR1	LuPo Glide Chair. Seat height 460mm.	72.00



LuPo-Turn Chair

This is a mobile version of the LuPo-Glide Chair above.

Prices £*		*See Pricing Information on page 2
SF-CHAIR14A	Lupo-Turn Height Adjustable Swivel Chair with Castors. Seat height 450-550mm.	129.00
SF-CHAIR14B	Lupo-Turn Height Adjustable Swivel Chair with Glides. Seat height 420-520mm.	102.00



Beech Stool

Traditional wooden stool, made from solid beech using glued and pinned mortice and tenon joints for lasting strength.

Prices £*		*See Pricing Information on page 2
SF-STOOL8	Beech Stool. Seat height 560mm.	38.00



Alpha Stac Tek Stool

Designed for education these stools have a laminated beech dished seat with a waterfall front for added comfort. The 'skid base' frame allows the stools to be stacked six high or hung on a table top.

Prices £*		*See Pricing Information on page 2
SF-STOOL9	Alpha Stac Tek Stool, with footrest. Seat height 460, 560, 610 or 660mm.	47.00



Alpha Stac Tek Stool with backrest

This is essentially an Alpha Stac Tek stool with a backrest. Ideal where students will be seated for extended periods of time. The 'skid base' frame allows the stools to be stacked four high or hung on a table top.

Prices £*		*See Pricing Information on page 2
SF-STOOL9A	Alpha Stac Tek Stool with Backrest. Seat height 560, 610 or 660mm.	59.99



Nortek Super Stool

Superstools have an extremely durable construction with a double panelled breathing polypropylene seat. Stools can be stacked or hung on a table top.

Prices £*		*See Pricing Information on page 2
SF-STOOL1-C	Nortek Super Stool with Chrome Legs. 370 x 370mm. Seat height 460, 560 or 610mm.	102.00
SF-STOOL1-S	Nortek Super Stool with Metallic Silver Legs. 370 x 370mm. Seat height 460, 560 or 610mm.	72.00



Nortek Super Stool with Backrest

Ideal where students will be seated for longer periods of time. Stools can be stacked or hung on a table top.

Prices £*		*See Pricing Information on page 2
SF-STOOL1A-C	Nortek Super Stool with Chrome Legs and Backrest. Seat height 460, 560 or 610mm.	123.00
SF-STOOL1A-S	Nortek Super Stool with Metallic Silver Legs and Backrest. Seat height 460, 560 or 610mm.	88.00

Millennium Project Tables

The popular and versatile Millennium Project Table and Pupil Desk range has a heavy duty fully welded tubular steel framework using 50mm diameter legs and 60 x 20mm top support members. Individual units can be used together to form work tables that maximise the use of available space.



Available in either 725mm or 825mm heights - Please specify with order.

Prices £*		*See Pricing Information on page 2
SF-TABLE2	Square Table 1200 x 1200 x 725/825mm	180.00
SF-TABLE12	Rectangular Table 1200 x 600 x 725/825mm	139.00
SF-TABLE13	Rectangular Table 1500 x 600 x 725/825mm	154.00
SF-TABLE14	Rectangular Table 1800 x 600 x 725/825mm	170.00
SF-TABLE11	Rectangular Table 1500 x 1200 x 725/825mm	199.00
SF-TABLE3	Rectangular Table 2400 x 1200 x 725/825mm	257.00

Round Ended Table

Various sizes of round-ended project tables are available. They can be used individually or in combination with rectangular tables to form shapes and sizes that suit specific requirements.



Available in either 725mm or 825mm heights - Please specify with order.

Prices £*		*See Pricing Information on page 2
SF-TABLE15	Round End Table 900 x 1200 x 725/825mm	282.00
SF-TABLE16	Round End Table 1200 x 1200 x 725/825mm	303.00
SF-TABLE4	Round End Table 1500 x 1200 x 725/825mm	334.00
SF-TABLE5	Round End Table 1800 x 1200 x 725/825mm	359.00

Quadrant Table

Quadrant tables can be used to make learning spaces interesting and fun. When combined together or with rectangular units they produce a multitude of practical configurations or can produce a variety of shapes when combined with any of the other millennium project tables.



Available in either 725mm or 825mm heights - Please specify with order.

Prices £*		*See Pricing Information on page 2
SF-TABLE17	90° Quadrant 1000 x 600 x 725/825mm	262.00

Triangular Table

Equilateral triangular tables can be used as corner connector tables for project tables used against walls, or can produce a variety of shapes when combined with any of the other millennium project tables.



Available in either 725mm or 825mm heights - Please specify with order.

Prices £*		*See Pricing Information on page 2
SF-TABLE6	Triangular Table 1200 (sides) x 725/825mm	231.00

Alpha Tables

30mm beech laminate top with lacquered solid beech edges and silver cantilever underframe. Matches Alpha StacTek stools (see page 190).

Prices £*		*See Pricing Information on page 2
SF-TABLE18-SS710	Alpha Table (600x600x710mm)	95.00
SF-TABLE18-DS710	Alpha Table (1200x600x710mm)	119.00
SF-TABLE18-SS710T	Alpha Table with Tray (600x600x710mm)	99.00
SF-TABLE18-SS760T	Alpha Table with Tray (600x600x760mm)	99.00
SF-TABLE18-DS710T	Alpha Table with 2 Trays (1200x600x710mm)	129.00
SF-TABLE18-DS760T	Alpha Table with 2 Trays (1200x600x760mm)	129.00
SF-TABLE19-S	Height Adjustable Table (700x700x710-840mm)	109.00
SF-TABLE19-D	Height Adjustable Table (1400x700x710-840mm)	139.00
SF-TABLE20-S	Height Adjustable Table (600x600x640,710,760mm)	109.00
SF-TABLE20-D	Height Adjustable Table (1200x600x640,710,760mm)	129.00
SF-TABLE20-ST	Height Adjustable Table with Tray (600x600x640,710,760mm)	119.00
SF-TABLE20-DT	Height Adjustable Table with 2 Trays (1200x600x640,710,760mm)	149.00

Cantilever Workstations

Cantilever Workstations provide a smart and long-lasting furniture solution for general teaching areas and Technology rooms in particular. Units are modular in nature and based on 1200, 1500 or 1800mm lengths and 600 or 800mm work surface depths. Used with matching corner units and under-bench cupboards you will have the building blocks and flexibility to furnish almost any teaching space. To provide a bespoke solution, the basic Workstation is just the beginning. Sharing the same modular dimensions, a range of accessories now becomes available to create a custom teaching space for a wide variety of Technology teaching options.

ICT and Computing

A range of cable management options, monitor stands and CPU trays securely fasten to the workstation to provide a smart and ergonomically sensitive solution for all types of computer-based work.

See page 193 for full details

PECT – Pneumatics, Electronics and Control Technology

The on-bench facilities are all based around a modular trunking unit that fastens to the back edge of the workstation.



There are almost endless permutations of what facilities (and combinations of facility) can be selected but, in essence, options are based on the following:

- 240V sockets
- Fixed 5V DC protected power supply via standard 4mm sockets
- Dual rail protected power supply in stepped increments from 5V to 15V DC.
- Dual rail protected power supply adjustable from 5V to 15V DC. with integral analogue metering.
- Compressed air outlet for pneumatics work.
- 24V soldering iron supply.
- Solder fume extraction ports.
- RJ45 network ports.

See Electronics section page 93 for full details

Height Adjustable PECT Workstation



This 1200 x 750mm workstation is fitted with MPLV mains/low voltage trunking with a 24V soldering iron supply. The workstation can also have additional fume extraction trunking added which can be connected to a suitable extraction unit.

See Electronics section page 93 for further options

Prices £*		*See Pricing Information on page 2
SF-DESK5	Special Needs PECT Workstation 1200 x 750 x 670-970mm	974.00

Basic Workstation



SF-DESK2G

Optional Underbench Cupboards

This underbench cupboard is designed to fit the 1500 x 800mm version of the Cantilever Workstation (above) and provides a general storage facility for a wide range of applications, while still providing ample leg room even for adults. They are produced in two configurations, the SF-DESK2GCS has shelves and the SF-DESK2GCT is supplied with 20 trays.



SF-DESK2G + SF-DESK2GCS

Height Adjustable Workstation



SF-DESK3 shown with
Walton Drawing Board

This height adjustable workstation allows access for all students and should be considered for inclusion in all work areas. The height of the work surface can be adjusted from 670mm to 970mm high using a removable winding handle.

Prices £*		*See Pricing Information on page 2
SF-DESK2A	Cantilever Workstation 900 x 600 x 725mm	164.00
SF-DESK2B	Cantilever Workstation 1200 x 600 x 725mm	170.00
SF-DESK2C	Cantilever Workstation 1500 x 600 x 725mm	180.00
SF-DESK2D	Cantilever Workstation 1800 x 600 x 725mm	199.00
SF-DESK2E	Cantilever Workstation 900 x 800 x 725mm	180.00
SF-DESK2F	Cantilever Workstation 1200 x 800 x 725mm	185.00
SF-DESK2G	Cantilever Workstation 1500 x 800 x 725mm	195.00
SF-DESK2H	Cantilever Workstation 1800 x 800 x 725mm	216.00
SF-DESK2ARCT	Round Corner Table, 800 x 800 x 725mm for 600mm deep SF-DESK2A/B/C/D	129.00
SF-DESK2ERCT	Round Corner Table, 1000 x 1000 x 725mm for 800mm deep SF-DESK2E/F/G/H	154.00
SF-DESK2GCS	Underbench Cupboard with Shelves for SF-DESK2G only	257.00
SF-DESK2GCT	Underbench Cupboard with Trays for SF-DESK2G only	385.00
SF-DESK3	Special Needs Height Adjustable Workstation 1200 x 750 x 670-970mm	508.00

Computer Workstations



SF-DESK11H
+ SF-DESK-CPU1
+ SF-DESK-MS1.
(Computers not included)

Smart and robust workstations that represent an effective standard for ICT furniture. Each features comprehensive cable management and clever design details for flexible, modular arrangement. Optional adjustable monitor stands and lower CPU cradles can be added for a complete solution.



SF-DESK-MS1



SF-DESK-CPU1



SF-DESK-PB1



SF-DESK-MS2

Prices £*		*See Pricing Information on page 2
With Standard Metalwork		
SF-DESK11A	Infotech Computer Workstation 900 x 600 x 725mm	318.00
SF-DESK11B	Infotech Computer Workstation 1200 x 600 x 725mm	323.00
SF-DESK11C	Infotech Computer Workstation 1500 x 600 x 725mm	334.00
SF-DESK11D	Infotech Computer Workstation 1800 x 600 x 725mm	359.00
SF-DESK11E	Infotech Computer Workstation 900 x 800 x 725mm	344.00
SF-DESK11F	Infotech Computer Workstation 1200 x 800 x 725mm	349.00
SF-DESK11G	Infotech Computer Workstation 1500 x 800 x 725mm	359.00
SF-DESK11H	Infotech Computer Workstation 1800 x 800 x 725mm	385.00
SF-DESK11J	Half-Round Table 1200mm diameter	293.00
SF-DESK11K	Half-Round Table 1600mm diameter	298.00
With Chrome-alike Metalwork		
SF-DESK11A-C	Infotech Computer Workstation 900 x 600 x 725mm with Chrome-alike Metalwork	350.00
SF-DESK11B-C	Infotech Computer Workstation 1200 x 600 x 725mm with Chrome-alike Metalwork	356.00
SF-DESK11C-C	Infotech Computer Workstation 1500 x 600 x 725mm with Chrome-alike Metalwork	367.00
SF-DESK11D-C	Infotech Computer Workstation 1800 x 600 x 725mm with Chrome-alike Metalwork	395.00
SF-DESK11E-C	Infotech Computer Workstation 900 x 800 x 725mm with Chrome-alike Metalwork	378.00
SF-DESK11F-C	Infotech Computer Workstation 1200 x 800 x 725mm with Chrome-alike Metalwork	384.00
SF-DESK11G-C	Infotech Computer Workstation 1500 x 800 x 725mm with Chrome-alike Metalwork	395.00
SF-DESK11H-C	Infotech Computer Workstation 1800 x 800 x 725mm with Chrome-alike Metalwork	423.00
SF-DESK11J-C	Half-Round Table 1200mm diameter with Chrome-alike Metalwork	322.00
SF-DESK11K-C	Half-Round Table 1600mm diameter with Chrome-alike Metalwork	339.00

Prices £*		*See Pricing Information on page 2
Optional Extras		
SF-DESK-CPU1	Adjustable CPU Tower Holder 380-525mm in height & 60-210mm in depth for SF-DESK11	57.00
SF-DESK-MS1	Fixed Height Monitor Stand with universally joined VESA mounting bracket allowing the monitor to swivel in all directions. For use with SF-DESK11/12.	52.00
SF-DESK-MS2	Height Adjustable Monitor Stand with knuckle jointed, dual beam arms with cable clamps, and swivel VESA mounting bracket. For use with SF-DESK11/12.	82.00
SF-DESK-PB1	Computer Power Supply Block, fits inside cable trough, provides 4 individually fused 3.15A supplies and a separate earth. Conforms with BS 6396. For use with SF-DESK11/12.	41.00

Cabinet Information



Lervad roller shutter cabinets are strongly constructed on a Baltic pine veneered carcass with a Koto veneer interior. For additional safety, the beech veneered roller shutter is designed to open downwards and has an integrated brake (see image top right). Simply unlock the shutter with the key and the shutter will open and roll up gently into the base.

Roller Shutter Cabinet with Shelves



SF-CB11A

SF-CB11B

SF-CB11C

Prices £*		
*See Pricing Information on page 2		
Roller Shutter Cabinets		
SF-CB11A	Lervad Roller Shutter Cabinet with 4 shelves (800 x 400 x 1800mm)	770.00
SF-CB11B	Lervad Roller Shutter Cabinet with 4 shelves (1200 x 400 x 1800mm)	890.00
SF-CB11C	Lervad Roller Shutter Cabinet with 4 shelves (1000 x 610 x 1800mm)	910.00
Top Roller Shutter Cabinets		
SF-CB43A	Lervad Roller Shutter Top Cabinet with shelf (800 x 400 x 700mm)	420.00
SF-CB43B	Lervad Roller Shutter Top Cabinet with shelf (1200 x 400 x 700mm)	470.00
SF-CB43C	Lervad Roller Shutter Top Cabinet with shelf (1000 x 610 x 700mm)	470.00

Lervad Tool Cabinet - Virgin Interior



SF-CB13A

SF-CB13B

Although there are numerous designs specifically created to store certain woodwork/metalwork tools, vices, clamps, etc. for teachers wanting to create their own interiors the cabinets are also available with 'virgin interiors' (ie., without drilling or slotting).

Prices £*		
*See Pricing Information on page 2		
SF-CB13A	Lervad Roller Shutter Cabinet with 'virgin interior' for workshop tools (800 x 400 x 1800mm)	880.00
SF-CB13B	Lervad Roller Shutter Cabinet with 'virgin interior' for woodwork tools (1200 x 400 x 1800mm)	1,130.00
SF-CB13C	Lervad Roller Shutter Cabinet with 'virgin interior' for woodwork and metalwork tools (1200 x 400 x 1800mm)	1,220.00

Lervad Cabinet with Perfo / Louvre Interior



For those who require a flexible tool storage solution we are pleased to offer the (1200 x 400 x 1800mm) Lervad Roller Shutter Cabinet with a Perfo Panel interior. The Perfo panel accepts hook kits (see page 197).



The same Lervad cabinet is also available with a louvred back panel which holds storage bins.

Prices £*		
*See Pricing Information on page 2		
Perfo Panel Interior		
SF-CB24P	Lervad Roller Shutter Cabinet with a Perfo Back Panel (990 x 1371mm) for workshop tools	858.00
SF-HOOKKIT-P5	20 piece hook kit for Perfo panel (for area 1sq m approx)	37.95
See page 197 for information on Perfo Hook Kits.		
Louvre Panel Interior with 60 Bins		
SF-CB24B	Lervad Roller Shutter Cabinet with a Louvre Back Panel and: 24 bins (103 x 165 x 83mm) 24 bins (145 x 240 x 125mm) 12 bins (207 x 345 x 165mm)	999.00

Lervad Tool Cabinet - Fitted Interior

These cabinets are supplied with fitted racks, pegs and slots to neatly house a complete set of workshop hand tools. Full tool sets are available but the systems used are common to most brands and suppliers. Listings of the tool-set contents can be supplied on request.



SF-CB14 / 14T



SF-CB15 / 15T



SF-CB16 / 16T



SF-CB23 / 23T

Prices £*		*See Pricing Information on page 2
SF-CB14	Lervad Roller Shutter Cabinet with Fitted Interior for Workshop Tools (exc. tools) 800 x 400 x 1800mm	1,040.00
SF-CB14T	Workshop Tools for SF-CB14	1,320.00
SF-CB15	Lervad Roller Shutter Cabinet with Fitted Interior for Woodwork & Metalwork Tools (exc. tools) 1200 x 400 x 1800mm	1,300.00
SF-CB15T	Woodwork Tools for SF-CUPBOARD15	3,400.00
SF-CB16	Lervad Roller Shutter Cabinet with Fitted Interior for Metalwork Tools (exc. tools) 1200 x 400 x 1800mm	1,220.00
SF-CB16T	Metalwork Tools for SF-CUPBOARD16	2,900.00
SF-CB23	Lervad Roller Shutter Cabinet with Fitted Interior for Woodwork & Metalwork Tools (exc. tools) 1200 x 400 x 1800 mm	1,400.00
SF-CB23T	Woodwork & Metalwork Tools for SF-CB23	2,390.00

Lervad Tool Racks

These Tool Racks provide an alternative strategy for providing the hand tools that students need. Each rack is drilled, slotted and supplied with a full set of tools for an individual student. Alternatively racks can be supplied 'virgin' for drilling and slotting to accept alternative or existing resources. The locking cabinet ensures security and makes it straightforward to check-in and check-out tool sets as they are needed. A full list of tool-set contents can be supplied on request.



SF-TOOLRACK11
Woodwork Tool Rack



SF-TOOLRACK12
Metalwork Tool Rack



SF-TOOLRACK13
Wood & Metal Tool Rack

Prices £*		*See Pricing Information on page 2
SF-CB44B	Lervad Roller Shutter Cabinet with 2 shelves (24 tool rack capacity) 1200 x 400 x 1800mm (exc. tool racks)	810.00
SF-TOOLRACK10	Lervad Virgin Tool Rack (no tools, not drilled or slotted)	60.00
SF-TOOLRACK11	Lervad Woodwork Tool Rack (inc. 15 tools)	295.00
SF-TOOLRACK12	Lervad Metalwork Tool Rack (inc. 15 tools)	250.00
SF-TOOLRACK13	Lervad Wood & Metal Tool Rack (inc. 15 tools)	235.00

Lervad Cabinets for Vices and Clamps



SF-CB45A



SF-CB45B



SF-CB46A

An excellent aid to workshop tidiness and tool management, these roller shutter cabinets will securely house a selection of clamps, or the Lervad vices with vice holders needed to adapt woodwork benches for metalworking (see MTB-VICE17 pages 188-190 and MTB-VICE16 page 189.)

Prices £*		*See Pricing Information on page 2
SF-CB45A	Lervad Roller Shutter Cabinet with Fitted Interior for 12 metalwork vices (exc. vices) 800 x 400 x 1800mm	880.00
SF-CB45B	Lervad Roller Shutter Cabinet with Fitted Interior for 20 metalwork vices (exc. vices) 1200 x 400 x 1800mm	1,050.00
SF-CB46A	Lervad Roller Shutter Cabinet with Fitted Interior for clamps (exc. clamps) 800 x 400 x 1800mm	750.00

Steel Cupboards



Our range of industrial-quality steel cupboards are built to withstand punishing use, but remain secure and attractive for the workshop or storeroom.

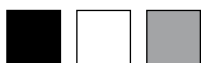
Shelf loading 85kg UDL.

Door and Drawer Colours



Smoke White Silver Blue Red Yellow Green

Body Colours



Black Smoke White Silver

Please state the colours you require when ordering.

Prices £*		*See Pricing Information on page 2
Large Cupboards 915(W) x 460(D) x 1780(H)mm		
SF-CB50	Standard Steel Cupboard (3 adj. shelves)	337.00
SF-CB54	Steel Wardrobe Cupboard (1 shelf and hanging rail)	321.00
SF-CB51	Steel Cupboard/Wardrobe (3 adj. shelves & shelf with hanging rail)	378.00
SF-CB52	8 Compartment Steel Cupboard (6 adj. shelves)	415.00
SF-CB53	12 Compartment Steel Cupboard (9 adj. shelves)	474.00
SF-CB56	Hanging File Steel Cupboard (5 adj. lateral rails, tiles not included)	419.00
SF-CB55	Steel Open Cupboard (4 adj. shelves)	295.00
Slim Cupboards 610(W) x 460(D) x 1780(H)mm		
SF-CB60	Slim Steel Cupboard (3 adj. shelves)	259.00
SF-CB61	Slim Steel Wardrobe (1 shelf and hanging rail)	242.00
Medium Cupboards 915(W) x 460(D) x 1015(H)mm		
SF-CB70	Steel Low Cupboard (1 adj. shelf)	257.00
Small Cupboards 460(W) x 460(D) x 890(H)mm		
SF-CB71	Small Steel Cupboard (2 adj. shelves)	130.00
SF-CB72	Small Steel Tool Cupboard (2 adj. shelves)	154.00
Workstation Cupboards 915(W) x 460(D) x 1060-1210(H)mm		
SF-CB80	Steel Workstation (2 adj. shelves & 2 lockable drawers)	418.00
SF-CB81	Steel Workstation (2 adj. shelves & 1 fixed shelf)	352.00
SF-CB82	Open Steel Workstation (2 adj. shelves & 1 fixed shelf)	304.00
SF-CB83	Open Steel Workstation (2 adj. shelves & 2 lockable drawers)	366.00
Optional Extras for Steel Cupboards		
SF-CBA-PADF1	Additional Padlock Fitment for double door cupboards (must be fitted at time of purchase)	42.00
SF-CBA-SHELF1P	Additional Shelf with Clips (900 x 460mm) for SF-CB50/54/55/70 (Includes 4 clips)	20.40
SF-CBA-SHELF2P	Additional Shelf with Clips (610 x 460mm) for SF-CB60/61 (Includes 4 clips)	14.25
SF-CBA-SHELF3P	Additional Shelf with Clips (460 x 460mm) for SF-CB71/72 (Includes 4 clips)	10.90
SF-CBA-SHELF4P	Additional Shelf with Clips (305 x 460mm) for Steel Cupboards (Includes 4 clips)	9.75

TechSoft Hazardous Storage Cupboards



Dished Top available for Small Hazardous Cupboard (includes rubber mat)

These cupboards isolate flammable materials and vapours from potential sources of ignition and clearly identify hazardous products in case of a fire. All have a removable 75mm sump base tray and are supplied with adjustable 85kg shelves, and a fitted smoke & fire alarm.

Prices £*		*See Pricing Information on page 2
SF-CB90	Standard Hazardous Cupboard (3 adj. shelves) 915(W) x 460(D) x 1780(H)mm	498.00
SF-CB91	8 Compartment Hazardous Cupboard (6 adj. shelves) 915(W) x 460(D) x 1780(H)mm	576.00
SF-CB92	Low Hazardous Cupboard (1 adj. shelf) 915(W) x 460(D) x 1015(H)mm	405.00
SF-CB93	Small Hazardous Cupboard (2 adj. shelves) 460(W) x 460(D) x 890(H)mm	214.00
SF-CB94	Small Hazardous Cupboard with dished top and rubber mat (2 adj. shelves) 460(W) x 460(D) x 890(H)mm	250.00
Optional Extras for Hazardous Cupboards		
SF-CBA-PADF1	Padlock Fitment (must be fitted at time of purchase)	42.00
SF-CBA-SHELF90P	Additional Shelf (900 x 460mm) for SF-CB90/92 (Includes 4 clips)	20.40
SF-CBA-SHELF91P	Additional Shelf (460 x 460mm) for SF-CB91/93/94 (Includes 4 clips)	10.30

Bott Standard Duty Cupboard with Bins



Robust sheet steel construction with a flexible interior supplied with bins. The double hinged doors are lockable.

Prices £*		*See Pricing Information on page 2
SF-CB107A	Bott Verso Bin Cupboard, 800 x 350 x 1000mm with 20 No. 3 bins (148 x 240 x 128mm) and 4 shelves	333.00
SF-CB107B	Bott Verso Bin Cupboard, 1050 x 350 x 1000mm with 30 No. 3 bins (148 x 240 x 128mm) and 4 shelves	426.00
SF-CB107C	Bott Verso Bin Cupboard, 800 x 350 x 2000mm with 44 No. 3 bins (148 x 240 x 128mm) and 10 shelves	563.00
SF-CB107D	Bott Verso Bin Cupboard, 1050 x 350 x 2000mm with 66 No. 3 bins (148 x 240 x 128mm) and 10 shelves	727.00

Steel Storage Cupboards and Storage Shelving

Bott Wall Cupboard



These wall cupboards are constructed of galvanised steel and come with 2 shelves which are adjustable on a 25mm pitch (Maximum loading 60kg per shelf).

Prices £*		*See Pricing Information on page 2
SF-CB108A	Bott Wall Cupboard 525 x 350 x 800mm	156.00
SF-CB108B	Bott Wall Cupboard 800 x 350 x 800mm	205.00
SF-CB108C	Bott Wall Cupboard 1050 x 350 x 800mm	258.00

Bott Tool Cupboard with Perfo Interior



This cupboard is constructed of galvanised steel and comes with a perfo interior which can be fitted out with hook kits to hold tools etc.

Prices £*		*See Pricing Information on page 2
SF-CB135-PP3	Bott Tool Cupboard with Perfo Interior 1050(W) x 650(D) x 2000(H)mm	695.00
SF-HOOKKIT-P10	60 piece hook kit for Perfo Panel	85.00

Perfo Hook Kits

N.B. Hooks supplied hold one tool each. Contact TechSoft for details of hooks/racks which will accommodate multiple tools.

SF-HOOKKIT-P4	15 piece hook kit for Perfo Panel	34.85
SF-HOOKKIT-P5	20 piece hook kit for Perfo Panel	37.95
SF-HOOKKIT-P8	30 piece hook kit for Perfo Panel	27.95
SF-HOOKKIT-P9	40 piece hook kit for Perfo Panel	61.15
SF-HOOKKIT-P10	60 piece hook kit for Perfo Panel	85.00
SF-HOOKKIT-P11	80 piece hook kit for Perfo Panel	111.00

Bott Tool Cupboard with Combination Interior



This cupboard is constructed of galvanised steel and comes with a perfo/louvre back panel which can be fitted out with tool hooks and bins. There are also 3 drawers (75mm, 125mm and 175mm) and a shelf.

Prices £*		*See Pricing Information on page 2
SF-CB108D	Bott Verso Kitted Cupboard with Combination Interior 1050(W) x 550(D) x 2000(H)mm	703.00
SF-HOOKKIT-P2	5 single hooks, 5 double hooks, 1 spanner holder for Perfo Panel	15.50
SF-PBIN-M1	Pack of 32 No. 2 Plastic Bin, 103 x 165 x 83mm. Mixed colours	40.00

Heavy Duty Shelving



SF-RACKSTOR13A + SF-RACKSTOR13A-S

Each shelving unit features a strong galvanised steel frame and five melamine-faced shelves each capable of supporting 340kg of uniformly distributed load. This is class leading performance for demanding users. Available in two depths and two widths, these units will fit together to form a bespoke storage system. The units feature boltless assembly and are supplied complete with protective feet, mallet and safety weight loading labels.

Prices £*		*See Pricing Information on page 2
SF-RACKSTOR13A	Shelving Unit with 5 melamine shelves, 915 x 455 x 1980mm	112.00
SF-RACKSTOR13B	Shelving Unit with 5 melamine shelves, 915 x 610 x 1980mm	122.00
SF-RACKSTOR13C	Shelving Unit with 5 melamine shelves, 1220 x 455 x 1980mm	124.00
SF-RACKSTOR13A-S	Additional Shelf for SF-RACKSTOR13A	17.00
SF-RACKSTOR13B-S	Additional Shelf for SF-RACKSTOR13B	18.00
SF-RACKSTOR13C-S	Additional Shelf for SF-RACKSTOR13C	18.00

Sheet Material Storage Racks

Nortek Racking

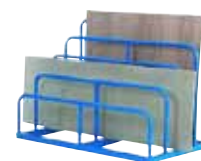


SF-RACKSHEETMAT1

Industrial Racking



SF-RACKSHEETMAT7



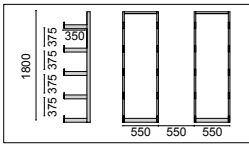
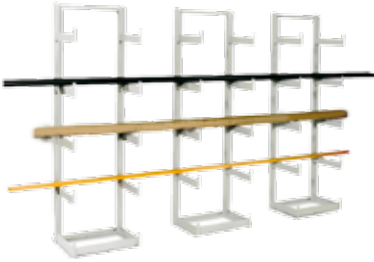
SF-RACKSHEETMAT6

Sheet material racks featuring steel construction and offering a space-saving, stable storage solution. Select the appropriate size for storing full sheets, prepared boards or mixed sizes. We recommend that racks are floor fixed for safety reasons.

Prices £*		*See Pricing Information on page 2
SF-RACKSHEETMAT1	Sheet Material Storage Rack 5 storage sections, 300mm apart, overall dimensions 1680(W)x750(D)x1000(H)mm	539.00
SF-RACKSHEETMAT7	Sheet Material Vertical Storage Rack 3 storage sections 300mm apart, overall dimensions 1083(W)x1022(D)x1220(H)mm. Holds boards up to 2.4m high and 1.2m wide. Can be bolted to floor for extra stability.	379.00
SF-RACKSHEETMAT6	Sheet Material Variable Height Vertical Storage Rack 4 storage sections 160mm apart, 5 support bars: 400, 550, 700, 850 & 1000mm high, overall dimensions 1400(W)x800(D)x1000(H)mm. 100kgs UDL between bars, 400kgs max UDL per rack. Basic floor fixings supplied.	469.00

Horizontal Storage Racking

Nortek Racking



This horizontal storage rack offers an alternative method of storing long materials. The racking is made up of fully welded heavy duty steel frameworks which have five pairs of 350mm long cantilever support arms (including the base arms) in the height. Each bay is spaced out so that the arms are equally spaced out. This racking requires both wall and floor fixing.

Prices £*

*See Pricing Information on page 2

SF-RACKHORZ1	Horizontal Storage Rack Bay (per bay)	231.00
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Industrial Racking



Single Side
(SF-RACKHORZ6P-500 + SF-RACKHORZ6EP-500)



Double Sided

A robust modular system for storing timber and metal stock featuring heavy-duty steel construction. Free-standing units are stable and fully load-bearing. Floor or wall-fixing can be used to ensure stability. Extension bays can be added. Double sided units make particularly good use of space and are often an ideal solution for storing longer lengths.

Prices £*

*See Pricing Information on page 2

Single Sided Cantilever Racking

(arms adjustable, 1000mm column centres, 2500mm height)

SF-RACKHORZ6P-400	Single Sided Racking 6 arms each 400mm length, 184kg capacity.	602.00
SF-RACKHORZ6EP-400	Single Sided Racking Extension 3 arms each 400mm length, 184kg capacity.	344.00
SF-RACKHORZ6P-500	Single Sided Racking 6 arms each 500mm length, 149kg capacity.	635.00
SF-RACKHORZ6EP-500	Single Sided Racking Extension 3 arms each 500mm length, 149kg capacity	356.00

Double Sided Cantilever Racking

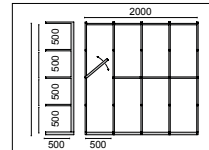
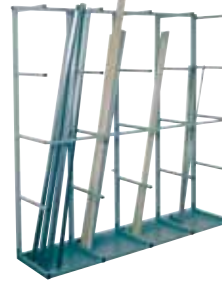
(arms adjustable, 1000mm column centres, 2500mm height)

SF-RACKHORZ7P-400	Double Sided Racking 12 arms each 400mm length, 184kg capacity	808.00
SF-RACKHORZ7EP-400	Double Sided Racking Extension 6 arms each 400mm length, 184kg capacity	437.00
SF-RACKHORZ7P-500	Double Sided Racking 12 arms each 500mm length, 149kg capacity	849.00
SF-RACKHORZ7EP-500	Double Sided Racking Extension 6 arms each 500mm length, 149kg capacity	459.00

N.B. All the above are also available with 1500mm column centres at an additional cost of £12 per unit

Vertical Storage Racking

Nortek Racking



This two metre high vertical storage rack is made up of four 500mm wide bays. Each bay has a 500mm square sheet steel base tray and a welded tubular steel upright frame. The mid-way arms are provided with a material retaining drop latch rail. The rack can be extended in length by fitting additional add-on bays.

N.B. This rack is not designed to be free-standing and for safety reasons requires fixing both to the floor and to the wall.

Prices £*

*See Pricing Information on page 2

SF-RACKVERT1	Vertical Storage Rack (2000 x 500 x 2000mm, Four 500mm wide bays)	692.00
SF-RACKVERT1A	Extension Bay for SF-RACKVERT1	180.00

Industrial Racking



SF-RACKVERT2

SF-RACKVERT3

These industrial-quality vertical racks feature robust steel construction and are supplied flat-packed for easy bolt-together assembly. Extension bays can be added for a bespoke storage solution. The upper bay sections have additional dividers to help segregate longer lengths of different section materials. These can be used as free-standing units but bolting to the floor is recommended for extra stability. Select the appropriate units for neatly and safely storing material from 2.5 to 4m long. Vertical racking offers a distinct advantage for saving precious floor space.

Prices £*

*See Pricing Information on page 2

SF-RACKVERT2	Vertical Storage Rack (1350 x 550 x 1500mm, includes 3 adjustable dividers and floor fixings)	429.00
SF-RACKVERT2A	Extension Rack of SF-RACKVERT2 (1300 x 550 x 1500mm)	345.00
SF-RACKVERT2B	Extra Divider for SF-RACKVERT2	32.00
SF-RACKVERT3	Vertical Storage Rack (1350 x 550 x 2700mm, includes 3 adjustable dividers and floor fixings)	619.00
SF-RACKVERT3A	Extension Rack for SF-RACKVERT2 (1300 x 550 x 2700mm)	445.00
SF-RACKVERT3B	Extra Bottom Divider for SF-RACKVERT3	17.00
SF-RACKVERT3C	Extra Top Divider for SF-RACKVERT3	33.00

TECHSOFT ENTERPRISE

Student Business Enterprise Projects

Signage and Display

School Promotion

School and Team Identity

Curriculum Resources for Art, Media and Design Technology



Student Enterprise, Media and Reprographics options from TechSoft are built around class-leading equipment and exemplary levels of support. Established in 1987, TechSoft UK Ltd has grown to be the leading supplier of Computer-Aided-Design and Manufacturing systems for education. Enabling customers to get the best from their investment is at the heart of everything we do.

All our Enterprise Packs have been carefully selected to deliver high added-value for student business and enterprise projects. With simple production processes, they offer significant return-on-investment potential and the chance to maximise profits from creative ideas. In addition, the resources provide a cost-effective solution for in-house signage, promotion and display.



Sublimation

Embroidery

Laser Cutting

Knife Cutting

*Large Format Banner +
Display Printer*

ENTERPRISE OPPORTUNITIES

Six packages are available which provide the following:

- Sublimation mugs, clothing and iPhone cases
- Self-adhesive vinyl signage for walls, floors and windows
- Applied-vinyl sports shirts
- Embroidered teamware
- Peelable wall graphics
- Laser engraved signage
- Laser engraved trophies
- Banners and pop-ups
- Event promotion: T-shirts, posters and banners.
- Banners as scene backdrops for drama productions
- Themed banners, posters and merchandising goods for sale and display



Enterprise Packs

Sublimation Enterprise Packs

Transfer Brilliant, Full Colour Graphics onto Mugs and other Sublimation Friendly Items

Sublimation Printing will reproduce brilliant, full colour graphics onto a huge range of ready-made sublimation friendly products. The results are eye-catching, durable and totally professional. Production is simple and inexpensive making Sublimation technology a quick means to turn creative ideas into profitable business reality. Our Sublimation Packs are also available with a robust wheeled workstation with storage for accessories, materials and consumables to provide a complete plug-and-play business solution.

Items you can make **Sublimation**



School Promotion



Event Promotion

Why Invest?

- Low start-up costs and masses of ready-to-customise products – a ready-made business model.
- Excellent profit potential and a valuable resource for the Design Technology and Art curriculum.
- A great teamwork activity with opportunities to plan and measure production efficiencies.
- Production skills are reliable and learned quickly.

Potential Earnings / Savings

Customised Item	Materials Cost	Resale	Profit
Printed Mug	£1.30	£4.95	£3.65
Printed T - Shirt (A5 design)	£4.30	£7.50	£3.20
Printed Polo Shirt (A5 design)	£5.50	£9.00	£3.50
Printed iPhone 5/5S Case	£3.45	£10.00	£6.55

Enterprise Sublimation Pack 1 (A4)

Includes:

- Full Sublimation Starter Pack including printer (A4), sublimation cartridges, heat press, mug press, 200 sheets sublimation paper (A4), heat resistant tape (MP9-SUB-A4)



- 36 x Sublimation-ready ceramic mugs (SUB-MUGP-36)
- 2 x Sublimation-ready white T-shirts (SUB-TS1-2-WH)
- 2 x Sublimation-ready white Polo shirts (SUB-PS1-2-WH)
- 2 x Leather case for iPhone 5/5S (SUB-PHONE1-2)

Optional Extras:

- Mobile Workstation TF-WS3-C2 - see page 185 for more information

For full details of our sublimation systems see pages 114 to 115.

£1,380.00
Order Code: BE-SUB-PK1

Enterprise Sublimation Pack 2 (A3)

Includes:

- Full Sublimation Starter Pack including printer (A3), sublimation cartridges, heat press, mug press, 200 sheets sublimation paper (A3), heat resistant tape (MP7-SUB-A4)



- 36 x Sublimation-ready ceramic mugs (SUB-MUGP-36)
- 2 x Sublimation-ready white T-shirts (SUB-TS1-2-WH)
- 2 x Sublimation-ready white Polo shirts (SUB-PS1-2-WH)
- 2 x Leather case for iPhone 5/5S (SUB-PHONE1-2)

Optional Extras:

- Mobile Workstation TF-WS3-C2 - see page 185 for more information

For full details of our sublimation systems see pages 114 to 115.

£2,730.00
Order Code: BE-SUB-PK2

Versatile and Popular Cutting Machine for Vinyl, Card, etc.

Roland Knife Cutters provide industry-leading technology and a proven track record of accuracy, performance and reliability. They precisely cut a large range of applied films for different applications. These range from self-adhesive vinyl for signage and heat-applied vinyl for garments to ceramic film for firing onto glazed mugs, plates, etc. Knife-cutting provides an economical, professional means to produce signage and customised products. Our Knife Cutter Packs provide everything you need to get started. A smart, robust mobile workstation for safe and secure storage of materials and the host PC is also available.

Items you can make

Heat Applied Vinyl Crest

Heat Applied Vinyl Graphics

Vinyl Signage

Vinyl Name Tag

Peelable Vinyl Wall Graphics

Ceramic Transfers *(requires kiln)*

Enterprise Knife Cutting Pack 1

Includes:

- Roland Stika SV-8E (MP-STIKA-SV8E)

- Comprehensive Training Pack
- Heat Press (SLM-SWINGPR3830 + SLM-SPCAP1)
- Mixed pack of coloured vinyl and application film (TAVN2-P1)
- 10m Roll Blue Removable Vinyl (TAVR12-10-BL)
- Mixed pack of 13 heat-applied vinyl sheets (TAVI-P2)
- Tweezers and squeegee (TA-TWEEZERS + TAVA-SQ5)
- T Shirt, Polo Shirt and Hoodie (CL-TS1-2 + CL-PS1-2 + CL-HD1-2)

Optional Extras:

- Mobile Workstation TF-WS3-C2 - see page 184 for more information

For full details of our knife cutting systems see pages 33 to 39

£1,210.00

Order Code: BE-KC-PK1

Why Invest?

- Low start-up costs and low input costs but delivering professional results.
- An ideal in-house resource to provide cost-effective signage around the school.
- Versatile product options from wall graphics to custom graphics for work and sportswear.
- An ideal resource to introduce Design students to real CAD/CAM activity.

Enterprise Knife Cutting Pack 2

Includes:

- Roland CAMM 1 GS-24E (MP-CAMM1-GS24E)

- Comprehensive Training Pack
- Heat Press (SLM-SWINGPR3830 + SLM-SPCAP1)
- Mixed pack of coloured vinyl and application film (TAVN5-P1)
- 10m Roll Blue Removable Vinyl (TAVR15-10-BL)
- Mixed pack of 13 heat-applied vinyl sheets (TAVJ-P2)
- Tweezers and squeegee (TA-TWEEZERS + TAVA-SQ5)
- T Shirt, Polo Shirt and Hoodie (CL-TS1-2 + CL-PS1-2 + CL-HD1-2)

Optional Extras:

- Stand RL-STAND2 - see page 37 for more information
- Mobile Workstation TF-WS3-C2 - see page 184 for more information

For full details of our knife cutting systems see pages 33 to 39

£2,165.00

Order Code: BE-KC-PK2

Potential Earnings / Savings

Customised Item	Materials Cost	Resale	Profit
Personalised T-Shirt <i>(Logo 90 x 90mm)</i>	£2.75	£7.50	£4.75
Personalised Polo Shirt <i>(Logo 90 x 90mm)</i>	£5.40	£9.00	£3.60
Personalised Hoodie <i>(Logo 90 x 90mm)</i>	£9.70	£12.00	£2.30
In-House Signage	Materials Cost	Outsourced	Saving
Vinyl Wall Lettering <i>(1000 x 100mm)</i>	£0.60	£19.00	£18.40
Peelable Wall Graphics <i>(500 x 500mm)</i>	£1.70	£22.00	£20.30

Enterprise Packs

Computerised Embroidery Enterprise Packs

Low Cost, User Friendly, Computerised Embroidery Systems

Based around the compact Brother PR-655 multi-needle machine to offer rapid output and large-scale embroidery onto almost any material. Multi-needles and advanced features minimise set-up time so commercial scale production can start almost immediately. Our Embroidery pack contains everything you need to get started. A smart, robust mobile workstation for safe and secure storage of materials and the host PC is also available.

Items you can make



Cap Embroidery



Sleeve Embroidery



Sweat Shirt Embroidery




Polo Shirt Embroidery

Computerised Embroidery Pack 1

Includes:

- Brother PR-655 multi-needle computerised embroidery machine (TM-EMB-PR655WCAPYL)



- Cap Frame
- Sleeve Frame
- Set of 3 Licences for PE Design Next Software (TM-EMB-PEDES3)
- Starter Set of Threads, Stabiliser & Interfacing (TA-EMB-SST10)
- T Shirt, Polo Shirt, Sweat Shirt & Cap (CL-TS1-2 + CL-PS1-2 + CL-SS2-2 + LITC-CAP)

Optional Extras:

- Brother Stand TMP-EMB-PRSTAND - see page 99 for more information
- Mobile Workstation TF-WS3-C2 - see page 185 for more information

For full details of our embroidery systems see pages 98 to 99

£5,655.00
Order Code: BE-EMB-PK1

Why Invest?

- Computerised embroidery delivers professional results simply and quickly.
- Offers realistic business opportunities and provides a creative tool for unique textile products.
- Students can transform 'basic' garments into desirable, high value, products.
- Impressive results will motivate students and raise achievement in all creative areas of the curriculum.

Potential Earnings / Savings

Customised Item	Materials Cost	Resale	Profit
Embroidered T-Shirt <i>(Logo 90 x 90mm)</i>	£3.00	£7.50	£4.50
Embroidered Polo Shirt <i>(Logo 90 x 90mm)</i>	£6.25	£9.00	£2.75
Embroidered Sweat Shirt <i>(Logo 90 x 90mm)</i>	£7.60	£11.00	£3.40
Embroidered Cap <i>(Logo 55 x 55mm)</i>	£2.25	£5.00	£2.75

Computerised Embroidery Pack 2

Includes:

- Brother Innov-is V3 multi-needle computerised embroidery machine (TM-EMB-INNOV3)



- Set of 3 Licences for PE Design Next Software (TM-EMB-PEDES3)
- Starter Set of Threads, Stabiliser & Interfacing (TA-EMB-SST8)
- T Shirt, Polo Shirt, Sweat Shirt & Cap (CL-TS1-2 + CL-PS1-2 + CL-SS2-2 + LITC-CAP)

Optional Extras:

- Mobile Workstation TF-WS3-C2 - see page 185 for more information

For full details of our embroidery systems see pages 100 to 101

£1,865.00
Order Code: BE-EMB-PK2

High Specification Laser Cutters and Engravers

TechSoft LaserCAM machines have a proven track record of high performance and reliable service in schools and colleges throughout the UK. Not to be confused with low-budget machines, LaserCAM features premium quality components, superb build quality and US-built sealed CO₂ laser tubes. Machines are supplied with everything you need to get started including a state-of-the-art extraction system. Laser cutting and engraving is rapid, very simple to use and gives the most direct route possible from student's creative work to the finished article.

Items you can make



Acrylic Coasters



Laser-Ply Trinket Box
*with kind permission from Mike Wilson
(www.dragonpowered.co.uk).*



Engraving Laminate



Cut & Engraved Acrylic



Metallic Engraving Laminate



Enterprise LaserCAM Pack A2+

Includes:

- TechSoft LaserCAM A2+ Package including high Specification Extraction and Filtration System (MP-LCA2P-30NR)



- Rotary Table (TMA-LC-R)
- Mixed Materials Pack (TPM3-LC2)
Contains 5 sheets laser engraving laminate (3 standard, 2 metallic); 13 sheets polypropylene; 10 sheets 4mm laser grade ply; 10 sheets 4mm medite; 14 sheets 3mm acrylic (8 colour, 1 clear, 5 fluorescent); 9 sheets 5mm acrylic (8 colour, 1 clear); 8 sheets 4mm plastazote. All sheets 600 x 400mm. Mixed colours

For full details of our LaserCAM systems see pages 23 to 25

£14,915.00
Order Code: BE-LASER-PK2

Why Invest?

- Laser-cut products have a huge and growing market with lots of business opportunities.
- Laser precision allows students to achieve professional standards with relative ease.
- Use 'standard' materials to save input costs while making desirable high-value products.
- Highly motivating technique for students to demonstrate CAD/CAM skills for exam assessment.

Potential Earnings / Savings

Customised Item	Materials Cost	Resale	Profit
Laser-Ply Trinket Box <i>(130 x 130 x 80mm)</i>	£4.50	£35.00	£30.50
Acrylic Photo Frame <i>(275 x 125 x 3mm coloured acrylic)</i>	£0.75	£7.50	£6.75
Engraved Laminate Keyring <i>(100 x 30mm coloured engraving laminate)</i>	£0.35	£2.00	£1.65
In-House Signage	Materials Cost	Outsourced	Saving
Coloured Laminate Sign <i>(600 x 130 x 1.3mm)</i>	£5.50	£18.00	£12.50
Metallic Laminate Sign <i>(600 x 130 x 1.3mm)</i>	£6.85	£20.00	£13.15
Engraved Clear Acrylic Sign <i>(600 x 130 x 1.5mm)</i>	£3.60	£43.00	£39.40
Acrylic Trophy <i>(150 x 100 x 10mm clear acrylic)</i>	£1.30	£15.00	£13.70

Enterprise LaserCAM Pack A3+

Includes:

- TechSoft LaserCAM A3+ Package including high Specification Extraction and Filtration System (MP-LCA3P-30NR)



- Rotary Table (TMA-LC-R)
- Mixed Materials Pack (TPM3-LC2)
Includes 5 sheets laser engraving laminate (3 standard, 2 metallic); 13 sheets polypropylene; 10 sheets 4mm laser grade ply; 10 sheets 4mm medite; 14 sheets 3mm acrylic (8 colour, 1 clear, 5 fluorescent); 9 sheets 5mm acrylic (8 colour, 1 clear); 8 sheets 4mm plastazote. All sheets 410 x 280mm (400 x 280mm for engraving laminate). Mixed colours.

For full details of our LaserCAM systems see pages 23 to 25

£12,250.00
Order Code: BE-LASER-PK3

Enterprise Packs

VersaCamm Enterprise Packs

Printing & Cutting, All in One Machine

VersaCamm from Roland DG is a high quality large format printer with CNC Knife Cutting built in. The VersaCamm range can be used to print outstanding quality banners and posters, as well as being able to cut vinyl stencil and applied graphics. The two functions can be combined to produce bespoke wall graphics, decals, self-adhesive logos, badges, fabric transfers and signage. VersaCamm uses durable, solvent based EcoSol inks for bright images that will resist weathering and wear and tear. The pack includes the VersaCamm SP-300i with 736mm width capacity. A larger model, the SP-540i with 1,346mm width capacity is also available.

Items you can make





Roll-up Banners



Canvas Print



Iron-on Printable Vinyl



Peelable Vinyl Wall Graphics



Vinyl Signage



Outdoor Banners



Self Adhesive Vinyl Posters

Why Invest?

- Students produce prestige products that have a ready market
- Produce bespoke, professional signage for all your school events
- Save money and raise the standard of in-house displays and school promotion
- Immerse students in a real business opportunity with benefits all round


Potential Earnings / Savings

Customised Item	Materials Cost	Resale	Profit
T-Shirt (Printed Logo 90 x 90mm)	£4.80	£7.50	£2.70
Polo Shirt (Printed Logo 90 x 90mm)	£5.65	£9.00	£3.35
Canvas Print (A4+) in Card Frame	£6.85	£17.00	£10.15
In-House Signage			
In-House Signage	Materials Cost	Outsourced	Saving
A3 Self-Adhesive Poster	£1.20	£15.00	£13.80
Peelable Wall Graphics (650 x 650mm)	£4.55	£25.00	£20.45
Roll-up Banner Material (600mm x 1.86m)	£12.40	£29.00	£16.60
Outdoor Banner (3m x 760mm)	£10.85	£49.00	£38.15

Enterprise Print and Cut Pack 1

Includes:

- Roland VersaCamm SP300i with ink cartridges and stand (MP-VERSA-SP300i)
- Mixed Materials Pack for Print and Cut (TPM-SP300)
- Banner Material (TAV-B7-10)
- Banner Eyelet Press with 100 brass eyelets and banner tape (TAV-EP1+TAV-EY100+TAV-BT1)
- Roll-up Banner Stand (TAV-BS-P60)
- Roll-up Banner Material (TAV-BS7-10)
- Mixed Pack of Coloured Vinyl and Application Film (TAVN5-P1)
- Mixed pack of 13 heat-applied vinyl sheets (TAVJ-P2)
- Tweezers and squeegee (TA-TWEEZERS + TAVA-SQ2)
- T-Shirt and Polo Shirt (CL-TS-2 + CL-PS-2)




For full details of our VersaCamm systems see pages 38 to 39.

£7,915.00
Order Code: BE-VERSA-PK1

Enterprise Print and Cut Pack 2

Includes:

- Roland VersaCamm SP540i with ink cartridges and stand (MP-VERSA-SP540i)
- Mixed Materials Pack for Print and Cut (TPM-SP300)
- Banner Material (TAV-B13-10)
- Banner Eyelet Press with 100 brass eyelets and banner tape (TAV-EP1+TAV-EY100+TAV-BT1)
- Roll-up Banner Stand (TAV-BS-P88)
- Roll-up Banner Material (TAV-BS95-10)
- Mixed Pack of Coloured Vinyl and Application Film (TAVN5-P1)
- Mixed pack of 13 heat-applied vinyl sheets (TAVJ-P2)
- Tweezers and squeegee (TA-TWEEZERS + TAVA-SQ2)
- T-Shirt and Polo Shirt (CL-TS-2 + CL-PS-2)



For full details of our VersaCamm systems see pages 38 to 39.

£10,115.00
Order Code: BE-VERSA-PK2

Focus Educational Software Resources

These interactive Design Technology resources are suitable for whole class teaching or individual study. They are tried and tested, having been developed over 15 years by experienced UK teachers. Available as Windows PC software (choose between single or site licences), or online with an annual subscription (DT Apps Pack). Site licences cover unlimited users within a school. The online annual subscription (DT Apps Pack) covers all of the titles and also includes home use at no extra cost.

Metals Manufacturing Processes

This resource covers the main techniques involved in manufacturing metal based products, bringing examples of industrial processes into the classroom. Each topic contains an animation of the process, detailed information, video clips and photos which can be printed out or pasted into other applications. There are built-in tests enabling students to quickly access their understanding of a topic area.



Processes include: Sand casting, Die Casting, Investment Casting, Sheet Metal Bending, Punching, Presswork, Drilling Jigs, Spinning, Welding, CNC Machining, Plasma Cutting.

OS100U	Metals Manufacturing Processes Windows Single User Licence.	29.95
OS100S	Metals Manufacturing Processes Windows Site Licence	99.95

Plastics Manufacturing Processes

Based on real-life production facilities, this resource successfully brings industry into the classroom. Each topic has an animation of the process and a wealth of detailed information and photographs. Once a topic has been studied, an on-screen test allows students to assess their knowledge and understanding. A great way to teach the theory of manufacturing in plastics.



Featured Processes include: Blow Moulding, Calendering, Compression Moulding, Injection Moulding, Extrusion, Line Bending, Rotational Moulding, Vacuum Forming.

OS101U	Plastics Manufacturing Windows Single User Licence.	29.95
OS101S	Plastics Manufacturing Windows Site Licence	99.95

Wood Joints

Exceptionally clear 3D models of 37 traditional joints, linked information pages and 80+ photos make this the ideal resource for students learning about joints and where they should be used in project work. Images and photos can be pasted into design folders with guidance given as to how the information should be evaluated.



Topic Areas Covered Include: Chairs, Tables, Cabinets, Table Tops, Drawers and Boxes, Doors and Panels. Joint Features Include: Dowel, Bridle, Mitre, Halving, Mortise & Tenon, Housing, Dovetail, Butt, Edge-to-Edge, etc.

OS102U	Wood Joints Windows Single User Licence.	29.95
OS102S	Wood Joints Windows Site Licence	99.95

Resistant Materials 2 Database

This resource includes information and prices for the majority of materials, components and fittings found in Resistant Materials design projects. Students can Browse, Search and Evaluate materials and produce accurate Cutting Lists and Project Costings. Findings can be saved and printed out for direct inclusion into design folders. New materials and price updates can all be added by the teacher.



Database categories include: Metals/Plastics/Wood, Man-made boards; Catches, Locks & Stays, Electronic Components, Handles & Knobs, Hinges, Hooks & Eyes, Knock-down Fittings, Nails, Rivets, Screws, Nuts, Bolts & Washers.

OS103U	Resistant Materials 2 Windows Single User Licence.	29.95
OS103S	Resistant Materials 2 Windows Site Licence	99.95

Mechanisms

This resource covers all major types of mechanisms and their practical application. Each mechanism is clearly explained through 3D animations, photographs, video and text. When used as a self-study package for learning the theory of mechanisms, students can work at their own pace, checking progress as they go through on-screen tests.

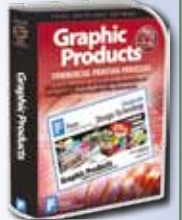


Topics include: Motion, Gear Systems, Pulley Systems, Lifting Systems, Screw Threads, Levers, Linkages, Cams & followers, Crank & slider, Sprockets & chain, Ratchet & Pawl, Moments Equilibrium, Shafts & Couplings, Bearings & Lubrication, Clutches & Brakes.

OS104U	Mechanisms Windows Single User Licence.	29.95
OS104S	Mechanisms Windows Site Licence	99.95

Graphic Products

By bringing examples of industrial practice into the classroom, this innovative and unique resource shows how the company designs, prints, packages and advertises one of its products using three industry standard printing processes – offset lithography, screen printing and flexography.



Topics include: Brochure Artwork, Imposition & Colour Separation, Plate Setting & Processing, 4 Colour Printing Process, Folding, Stitching, Trimming, Screen Production, Packaging, Cost of Production, etc.

OS105U	Graphic Products Windows Single User Licence.	29.95
OS105S	Graphic Products Windows Site Licence	99.95

Fairground Rides

An exciting interactive resource designed to aid the teaching of Fairground Ride control projects. High quality 3D animations of 18 amusement park rides are available in addition to photographic images, written descriptions and videos. At the click of a button the internal mechanism of each ride can be revealed. The resource is structured to encourage students of all abilities to conduct research into the design of ride layouts, mechanisms and electric circuits.



Topic Areas Covered: 3D Amusement Park Ride Simulations, Pulley Systems, Types of Motion, Gear Systems, Switching Circuits, Technical Vocabulary, On-Screen Testing.

OS106U	Fairground Rides Windows Single User Licence.	29.95
OS106S	Fairground Rides Windows Site Licence	99.95

Mechanical Toys

This resource is designed to aid the teaching of Moving Toy and Automata projects and is great fun to use! It is structured to encourage students of all abilities to conduct their own investigations into the basic principles of mechanisms. It combines seven topic areas with detailed analyses of 21 real-life automata.



Topic Areas Covered Include: Types of Motion, Gear Systems, Levers, Linkages, Pulley Systems, Cams and Followers, Technical Vocabulary.

OS107U	Mechanical Toys Windows Single User Licence.	29.95
OS107S	Mechanical Toys Windows Site Licence	99.95

DT Apps Pack OS120S1

The Focus DT Apps Pack Cloud Subscription gives unlimited online access to all of the above titles both at school and at home for all teachers and students. No installation required. iPad, Android, PC & MAC compatible (internet connection required). New titles and updates included at no extra cost. (For login information please include the email address of the Head of DT and/or Network Manager with your order.)

£99.95
per year
subs

Teaching Resources

Education Training Packs

What is an Training Pack?

At TechSoft, our approach to new machines is always the same. First we read all the manuals and guides to find out exactly how to set-up the machine. Sometimes we talk to the manufacturer and ask them to change things to make it safer, or more reliable, for schools to use. We then find ways to make it even simpler to operate, and we write extensions and extra features into our software to make output as easy and logical as it can be. We know that teachers have more than enough to contend with so, wherever possible, we make sure that everything works in the same way as other TechSoft machines.

Once we are happy with the machine and software side of things we find ways to make it as easy as possible to set and change cutters, or load materials for print alignment, for example. We design special collets and tooling and have these manufactured. Next, we rack our brains to come up with interesting projects you could use the machine for in school. We source new materials and test these to make sure they give interesting and reliable results. When we're certain that the machine is as good as it can be, and that the projects work perfectly every time, we burn all the projects onto a CD, collect samples of all the materials and we put them in a box. We add all the special tools and accessories we have designed, and then we write a simple, jargon-free book that distils everything we have done into a straightforward series of Tutorials.

We call this an Training Pack and teachers tell us it is the quickest and most helpful way possible to really get to know a machine, and to generate an inspiring set of sample projects - which is exactly why we write them.

How do I get hold of an Training Pack?

Training Packs are supplied free with all our most popular CNC machines and replacements can be purchased if needed. We also supply Materials Only Packs - these contain enough materials for five people to work through the tutorials, but do not contain items such as the special collets and tools.



Prices £*		*See Pricing Information on page 2
Replacement Training Packs (serial number of machine required)		
INSPAK-CR	For Craft ROBO - TS	65.00
INSPAK-CR2	For Craft ROBO-TS Pro II	65.00
INSPAK-STIKA	For STIKA STX-7, STX-8, SX-8/E, SX-12/E, SX-15/E, SV-8E, SV-12E, SV-15E	55.00
INSPAK-CAMM1	For CAMM 1 PNC-900/910/950/960/1210, CM-12/24/300, CX-12E, CX-24E, CX-300E	65.00
INSPAK-CAMM1PNC1200	For CAMM 1 PNC-1200	50.00
INSPAK-CX24EO	For CAMM 1 GS-24E, GX-24E, CX-24EO	95.00
INSPAK-SRM20	For SRM-20E	155.00
INSPAK-MDX15	For MODELA MDX-15E	199.00
INSPAK-MDX20	For MODELA MDX-20E	199.00
INSPAK-2300	For CAMM 2 PNC-2300/A, EGX-300E	185.00
INSPAK-EGX350	For EGX-350E	290.00
INSPAK-MDX40A	For RotoCamm MDX-40AE	170.00
INSPAK-MDX40	For RotoCamm MDX-40E	199.00
INSPAK-TS30	For RotoCamm TS-30E	199.00
INSPAK-TS400	For RotoCamm TS-400E	240.00
INSPAK-MDX500	For MODELA PRO MDX-500E, MDX-650E	355.00
INSPAK-MDX540	For MODELA PRO MDX-540E	325.00
INSPAK-LASER	For LaserCAM A3, A3+, A2, A2+, A1+	120.00
Replacement Training Course Booklet & CD		
TA-INSMANUAL-REPLACE	Replacement Training Course Booklet	15.00
TA-INSCD-REPLACE	Replacement Training Course Data CD	10.00

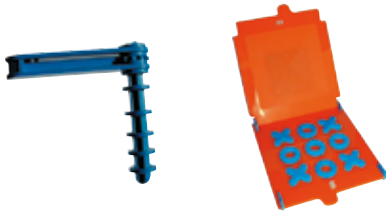
Prices £*		*See Pricing Information on page 2
Materials Only Training Packs		
INSMAT5-CR	For Craft ROBO - TS	115.00
INSMAT5-CR2	For Craft ROBO - TS Pro II	110.00
INSMAT5-STIKA	For STIKA STX-7, STX-8, SX-8/E, SX-12/E, SX-15/E, SV-8E, SV-12E, SV-15E	89.00
INSMAT5-CAMM1	For CAMM 1 PNC-900/910/950/960, PNC-1210, CM-12/24/300, CX-12E, CX-24E, CX-300E	72.00
INSMAT5-CAMM1PNC1000	For CAMM 1 PNC-1000/1000A/1100	112.00
INSMAT5-CAMM1PNC1200	For CAMM 1 PNC-1200	95.00
INSMAT5-CX24EO	For CAMM 1 GS-24E, GX-24E, CX-24EO	115.00
INSMAT5-SRM20	For SRM-20E	140.00
INSMAT5-MDX15	For MODELA MDX-15E	125.00
INSMAT5-MDX20	For MODELA MDX-20E	140.00
INSMAT5-CAMM2	For CAMM 2 PNC-2300/A, EGX-300E	165.00
INSMAT5-EGX350	For EGX-350E	175.00
INSMAT5-MDX40	For RotoCamm MDX-40E	190.00
INSMAT5-MDX40A	For RotoCamm MDX-40AE	190.00
INSMAT5-TS30	For RotoCamm TS-30E	170.00
INSMAT5-TS400	For RotoCamm TS-400E	192.00
INSMAT5-MDX500	For MODELA PRO MDX-500E, MDX-650E	160.00
INSMAT5-MDX540	For MODELA PRO MDX-540E	285.00
INSMAT5-LASER	For LaserCAM A3, A3+, A2, A2+, A1+	95.00

Designs to Inspire and Make

We are often asked for exemplar projects which can be used in schools to inspire students. Obviously, teachers can design and make their own projects, but in the real world of teaching, time pressures often preclude them from actually getting round to it.



To help out, TechSoft have put together a range of proven project ideas for teachers to manufacture on their own RotoCAMP MDX-40AE, MDX-40E, TS-30E, TS-400E, EGX-350E, CAMM 2 PNC-2300/A, EGX-300/E or MODELA MDX-15E/20E, using 2D Design and the free Roland software suite.



There are eight different project ideas in the pack, each carefully chosen to illustrate different machining or constructional techniques. They range from simple mechanical toys and games, to full 3D designs.



The pack includes a CD, and enough pre-cut materials to have a couple of tries at each project (only common workshop materials are used). Complete manufacturing drawings and setups, together with a detailed set of manufacturing (and assembly where appropriate) instructions, are included on the CD.



Whilst the projects themselves are useful as exemplar materials for students, the actual practice of making the projects and studying the designs can act as very useful training and an inspiration to teachers as well!

Prices £*		
*See Pricing Information on page 2		
TA-DTIM	Designs to Inspire and Make (Materials & CD)	55.00

The Pen Project

The preparation of a full scheme of work can be tedious at the best of times. Given the pressures in teaching these days, time is usually at a premium. If you are currently struggling to find the time to develop your own resources, The Pen Project from TechSoft could well be the answer.



Target Machines :

MDX-15E, MDX-20E, MDX-40AE, MDX-40E, TS-30E, TS400E, PNC-2300/A, EGX-300E, EGX-350E, MDX-500E/650E/540E

Required Software :

Design Tools - 2D Design

Target Age :

Key stages 3-4



The TechSoft Pen Project is a lovely introduction to simple 2.5D design and manufacture, and is suitable for students from year 7 through to year 10. By creating a design, students will learn a variety of drawing skills, from using a grid, to creating an interesting shape using bezier curves. The school will simply need to provide 3mm sheet material (Forex classic is ideal), standard tools and double sided tape.

Machining time per project is from approximately 2.5mins on a RotoCAMP, or 5mins on a MODELA. (Times dependent on the material used.)

The pack consists of a project folder with Teachers' Notes, Students' Worksheets, etc. (all photocopyable), a CD containing setup files, etc., plus a copy of all documentation which may be directly printed, and 100 pen refills, ie., all you need to get going.

Prices £*		
*See Pricing Information on page 2		
TA-PP-PROJECT	The Pen Project (Booklet, Materials & CD)	59.00
TA-PP-PEN100	Replacement mini pen refills (Pk of 100) for the Pen Project	4.95

F1 in Schools Project Package

Schools thinking of entering the F1 Challenge will be delighted to know that they may already have the technology in place to design and build a winning car. The TechSoft F1 in Schools Project Package brings together software and hardware to make the task cost-effective and straightforward. If you already have a TechSoft milling machine compatible with our Self-Centering Vice (see page 87), then you will be off to a flying start.

Design

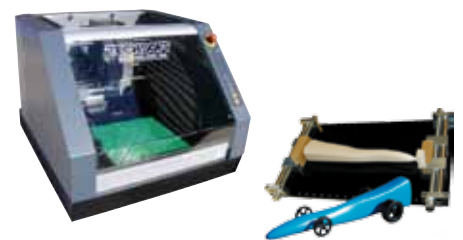
There is an ever growing number of schools who have chosen SolidWorks Education Edition as their 3D CAD solution (see page 18). SolidWorks is supplied with a detailed step-by-step tutorial written specifically for the F1 in Schools challenge.

Analyse

Once you have designed your car, and indeed during the design process, it is important that students are able to analyse their designs and make appropriate design changes. The SolidWorks Education Edition comes complete with a sophisticated suite of Simulation software which allows analysis of CAD models. The SolidWorks F1 in Schools tutorial details the use of Flow Simulation to produce aerodynamic tests.

Make

TechSoft's RotoCAMP MDX-40AE is very much a 3D machine and is ideally suited for machining the car bodies. Using TechSoft's 3D CAM software (Visual Toolpath) and the self-centering vice (with TechSoft's F1 in Schools car fixture) students can accurately machine both sides of their car.



What's in the Package?

The TechSoft F1 in Schools fixture includes a 3mm long reach ball-nosed tool together with fixtures to use with a self-centering vice to machine the car.

Prices £*		
*See Pricing Information on page 2		
MP-ROTO-MDX40AE	TechSoft/Roland RotoCAMP MDX-40AE (inc TechSoft Training Pack and Visual Toolpath software)	4,995.00
RL-ROTO-VICE	Self-Centering Vice	245.00
RL-ROTO-VICEVT	Self-Centering Vice and Visual Toolpath	400.00
TA-F1	TechSoft F1 in Schools Fixture	195.00

LaserCAM Servicing and Maintenance

Routine maintenance of LaserCAM machines is largely a matter of cleaning, lubrication and checking filter condition. Full training on what is needed is covered at the time of installation and is backed up with detailed instructions contained within the TechSoft Training Guide. **Maintenance beyond this, including alignment of the laser beam, requires specialist training and equipment and must not be attempted by the user.**



LaserCAM Annual Service / Maintenance Call-Out

Provided user maintenance guidelines are followed carefully and a regular maintenance routine is established, then it will be some time before a LaserCAM needs further attention. Quite how long will depend on use, but many schools opt for an annual service once the warranty period has expired. This service includes cleaning and adjustment of all mechanical and optical systems together with output tests to determine the efficiency of mirrors and lenses. Laser beam alignment is critical to efficient performance so this is checked and adjusted as needed. 'Raw' laser output is measured and this can give an indication of tube life expectancy. Schools will receive a full report following the service.



LaserCAM Standard Call-Out

The most common reason for a LaserCAM failing to give consistent results is misalignment of the laser beam and/or mechanical systems. Age and use will contribute to this, but so too will over-enthusiastic cleaning, accidental knocks and bumps, and moving the machine to a new location. Most of these issues can be solved with a single call-out. Our engineers do not 'clock-watch', but about an hour on-site is usually all that is needed. If component failure is diagnosed, then parts will be charged in addition. In the unlikely event that parts are not available, our engineer will return to complete the repair with no further charges being levied. If a failed laser tube is diagnosed then this call-out charge will be absorbed within the cost of fitting a replacement tube.

CNC Machine Maintenance and Training

Staff changes often mean that expertise is lost and we receive frequent enquiries about elderly (and not so elderly) TechSoft machines 'discovered' by teachers new to a department. Machines include LaserCAMs and many of the TechSoft/Roland knife-cutting and milling/routing systems. In nearly every case, machines can be re-commissioned at very low cost and need only basic maintenance to bring back into service. We will, of course, need to liaise in some detail to check on machine type, condition and likely work needed before calling. A Maintenance and Training Call-Out provides a TechSoft engineer on-site for up to two hours to carry out maintenance and re-commissioning work, with a further two hours to deliver staff training. This can prove an extremely cost-effective way to boost CAD/CAM work in a department.



Workshop Service and COSHH Testing

Schools have a legal responsibility to maintain workshop equipment in a safe condition that complies with the relevant safety standards. This includes an annual Service Report where the condition and compliance of every machine is noted and any necessary repairs or shortcomings are highlighted for attention. In addition, COSHH responsibilities require all extraction systems to be similarly tested for correct flow rates and filter efficiency.



TechSoft will carry out this work and set up the required service records schools need to retain. These records will detail compliance and make recommendations about any items that fail to meet the required standard. It is the school's responsibility to act on these recommendations. If required, TechSoft will provide a quotation to carry out any remedial work identified.



Servicing includes reporting on all machines, lubrication and adjustment of drive belts, guards and interlocks as needed. Machine repairs (as such) are not included. Larger departments may require more than a single one-day visit, please contact TechSoft for advice prior to booking.

Prices £*		*See Pricing Information on page 2
CALLOUT_S	Standard Callout for 1 TechSoft CNC machine (UK Mainland)	395.00
CALLOUT_M	Maintenance Callout/Annual Service for 1 TechSoft CNC machine (UK Mainland)	435.00
CALLOUT_MT	Maintenance and Training Callout for 1 TechSoft CNC machine (UK Mainland)	495.00
CALLOUT_VC	Servicing and/or COSHH Testing of TechSoft CNC and/or Manual Machine(s). Includes safety check and report, belt tensioning and lubrication. Excludes any repair costs. One engineer on-site for 1 day max. (UK Mainland)	595.00
CALLOUT_VCA	Additional Day/Engineer for CALLOUT_VC	350.00

Getting the Best from 2D Design V2



2D Design V2 is an extensive program with lots of extremely useful functionality. These training booklets are intended to teach you how to access and use some of the new, and not so new, parts of the software. Our hope is that as well as learning new skills and techniques, you will also take ideas from this course to use in your school.

Spinner Training Course Book & CD



If you follow these instructions you will create a manufacturing drawing for a slot jointed product (Spinning Top), a 'Print then Cut' design for a sticker and a presentation sheet detailing the different aspects of the project.

Photo Frame Buddies Course Book & CD



If you follow these instructions you will create a manufacturing drawing for a slot jointed product (Rocking Photo Frame), a 'Print then Cut' design for a sticker and a presentation sheet detailing the different aspects of the project.

Prices £*		*See Pricing Information on page 2
CRM-2D-SPIN	Spinner Training Course Booklet & CD for 2D Design V2 Software	60.00
CRM-2D-PHOT	Photo Frame Buddies Course Booklet & CD for 2D Design V2 Software	60.00

Bespoke Training Courses

The courses listed on page 210 are all scheduled for the coming year but they are only a snapshot of what we can offer. A lot of our training work – particularly in the Summer Term – is prepared for groups of schools collaborating for an area CPD day, or is written specifically to meet the needs of an individual department. We liaise with numerous teacher training organisations including Universities and GTP/PGCE consortia. Many book an annual presentation from us, to bring students up to speed with the latest developments in CAD/CAM, and to illustrate the ways in which schools are adopting the technology. We are able to bring a national perspective to this, which is often a valuable way for students to put into context their experiences in the limited number of schools they are able to work in when training.



Occasionally schools involve students as well as staff in 'bespoke' training programmes and we welcome this. It can prove to be a highly successful way to launch a project or to generate 'student mentors' to help embed new ideas and start networking and sharing ideas – something that young people are particularly good at.

The titles below are all successful courses that have been run over the last year. These might be just what you are looking for, or might provide a template for a bespoke course that we will write for you.

Projects for KS3 - Pupil's First Steps with CAD/CAM

For existing or new 2D Design users. Includes tips for managing and troubleshooting pupils' work and some 'golden rules' to avoid pitfalls. The course focuses on basic CAD/CAM skills and inclusion for all pupils as part of their D&T entitlement.

Textiles and CAD/CAM

The main focus is to inspire Textile teachers and allow some hands-on experience. 2D Design V2 is used to create designs for knife cutting, embroidery, laser cutting and sublimation printing. No previous knowledge of 2D Design or CAD/CAM is required.

3D Manufacturing in Schools

The course demonstrate two systems of rapid prototyping; SRP (subtractive rapid prototyping) and FDM (fused deposition modelling). It's a fascinating field and essential grounding for Design and Technology, Engineering and Product Design.

CAD/CAM for Engineering Diploma

Schools teaching the new Engineering Diploma will need access to the latest tools for generating drawings and for testing ideas. 2D Design and SolidWorks provide all the tools needed and the course will allow delegates to 'test-drive' (and take away) TechSoft's materials which deliver the CAD/CAM needed for L1, L2 and L3 Diplomas.

Courses to suit you can be run at our Head Office in North Wales, or you may wish to host an event yourselves. Whatever your requirements, contact your area Training Manager (see page 5), or TechSoft head office, and we will be happy to look at possibilities.

Prices £*		*See Pricing Information on page 2
CR-INSET-TECHSOFT	1 Day Bespoke Training Course at TechSoft (Maximum 10 attendees)	*295.00
CR-INSET-SITE	1 Day Bespoke Training Course at School Site	*695.00

* Prices are per course and not per person.

CAD/CAM Training Courses

The following 'scheduled' courses are offered throughout the year at regional venues. Delegate fees include lunch and refreshments as appropriate. We have many more options available and will be happy to discuss 'bespoke' packages to meet particular needs. Many schools, colleges and universities opt to host a course and invite neighbouring schools – provided delegate numbers are sensible then we are happy to support this, but please get in touch first to discuss your ideas. All our courses include a delegate certificate for CPD records.



For details of current venues and dates please see www.techsoft.co.uk/Training

<h4>CAD/CAM Overview</h4>  <p>This full day course provides an opportunity to broaden your knowledge of CAD/CAM and understand how it can be integrated into your teaching. It will show by practical demonstration how 2D Design V2 and SolidWorks can be used to develop a variety of innovative projects for the KS3 – KS5 curriculum. The day will have relevance to all material areas in Design and Technology and will exploit the full range of TechSoft machines. This is not a detailed training day (as such), but a chance to get a feel for the range of CAD/ CAM technologies available and how they can make a real difference for student projects.</p>	<h4>Getting the Best from 2D Design</h4>  <p>2D Design has been the standard for 2D CAD in education for many years and all the familiar 'technical drawing' tools are as relevant today as they ever were. This course aims to sharpen knowledge to achieve good geometry and will explore new tools for creating stunning graphics, alongside or to enhance, conventional geometric drawings. The course is fully hands-on and delegates will all use (and keep) a step-by- step guide to create a typical student project that exploits all the techniques covered. The guide will be particularly useful for those attending a twilight session where time is limited.</p>
<h4>Getting Started with SolidWorks</h4>  <p>SolidWorks is world-class 3D CAD which is well established as a market leader for commercial 3D design and engineering. With a friendly interface and intuitive routines SolidWorks is now in daily use in hundreds of school and has revolutionized what can be achieved with 3D design. This course is aimed at beginners and will provide all you need to get started with basic modelling routines. These include developing a modelling strategy and the basic tools needed to create 3D parts. Particular emphasis will be placed on using model history to keep on top of what is being created and to enable editing.</p>	<h4>Getting the Best from SolidWorks</h4>  <p>SolidWorks is fast becoming the standard for 3D CAD in education with hundreds of schools now using the software. The course is an excellent way for teachers already using 3D CAD to refresh the basics, to sharpen their knowledge and explore how SolidWorks provides the evidence students need for design iteration, testing and evaluation. More advanced part modelling, assemblies, finite element analysis, photo rendering and animation will be covered. The course is fully hands-on and delegates will all use (and keep) a step-by- step guide to create a typical student project that exploits all the techniques covered.</p>
<h4>2D Design for Textiles</h4>  <p>2D Design is a fantastic resource for students to create original designs for Textiles work. The CAD files produced can be used for CNC embroidery, laser-cut and engraved fabric, heat applied vinyl, and sublimation printing – to name just a few. This fully hands-on course gives delegates the opportunity to create and print their own fabric using sublimation printing and much more besides. There will be masses of example projects and specialist materials to inspect so cameras are welcome. Delegates keep the samples they produce as well as a coursework booklet. There will be lots of ideas to take back to the classroom!</p>	<h4>Lasers in Design and Technology</h4>  <p>TechSoft have been installing laser cutters for over ten years so it's not surprising that the teachers and technicians using them now may have missed out on initial training. This course is designed to bring all laser users up to speed with essential H&S responsibilities and how to maintain their machine for safe, reliable and efficient performance. Beyond these essentials, the full day course will explore an extensive range of laser applications and will include managing and troubleshooting student projects. The course will be hands-on using TechSoft LaserCAM machines but will be of general relevance to all laser users.</p>
<h4>Getting Started with CAD/CAM - KS2/3</h4>  <p>This course aims to give those new to CAD/CAM, the knowledge they need to introduce 2D Design in the classroom. There will be tips to help pupils develop good habits with CAD and some 'golden rules' to avoid pitfalls. The day is fully hands-on and delegates will be led through three projects which will exploit knife cutting, milling and laser cutter machines. Implications for incorporating such projects into all areas of the KS2/3 curriculum will be explored. The course focuses on basic CAD/CAM skills and will use 2D Primary and/or 2D Design V2 depending on the mix of delegates on the day.</p>	<h4>3D Technology for D&T Students</h4>  <p>3D CAD with Rapid Prototyping has revolutionised product design and soon may be commonplace in the home. No more waiting for the latest gadget or part to be shipped – just download the file and print it yourself. This course will show how SolidWorks can be used to create a component and fully test it before it leaves the desktop. Using the latest technology, 3D machining as well as 3D Printing will be demonstrated. The course aims to be a technology update and provide teachers with the facts they need to successfully develop 3D resources and enable students to use 3D techniques in their work.</p>

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